



DONALD L. WOLFE, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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IN REPLY PLEASE

REFER TO FILE: **W-0**

August 10, 2006

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Dear Supervisors:

**2006 AMENDED AND RESTATED WATER SYSTEM AGREEMENT BETWEEN
LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 40, ANTELOPE VALLEY,
AND PALMDALE HILLS PROPERTY, LLC, FOR WATER SERVICE TO
RITTER RANCH
SUPERVISORIAL DISTRICT 5
3 VOTES**

**IT IS RECOMMENDED THAT YOUR BOARD ACTING AS THE GOVERNING BODY
OF THE LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 40,
ANTELOPE VALLEY:**

1. Find that the enclosed 2006 Amended and Restated Water System Agreement (Restated Agreement) will not result in any substantial changes to the 1992 Water System Agreement that would cause new significant effects or a substantial increase in the severity of previously identified significant effects on the environment.
2. Adopt the enclosed Addendum for the Restated Agreement (Addendum) to the Mitigated Negative Declaration approved by your Board on September 22, 1992, for the off-site water system facilities required for the Ritter Ranch Development (Ritter Ranch) and to the Final Environmental Impact Report certified by the City of Palmdale on February 27, 2006.

3. Following the adoption of the Addendum, execute the Restated Agreement between Los Angeles County Waterworks District No. 40, Antelope Valley (District), and Palmdale Hills Property, LLC, owned by SunCal Companies (SunCal), for Ritter Ranch.
4. Following the approval of the Restated Agreement, delegate authority to the Director of Public Works, or his designee, to execute, file, and post a notice of determination.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The purpose of this action is for the adoption of the Addendum and for the District and SunCal to amend the Water System Agreement that your Board approved in 1992 (1992 Water System Agreement) between Ritter Park Associates, LLP (Original Developer), then owner of Ritter Ranch, and the District. Ritter Ranch is located within the City of Palmdale and is served by the District.

Implementation of Strategic Plan Goals

This action is consistent with the County Strategic Plan Goal of Fiscal Responsibility since SunCal has agreed to construct water system facilities sized to provide water service to Ritter Ranch and other potential developments located in West Palmdale.

FISCAL IMPACT/FINANCING

This action will have no impact on the County's General Fund.

No District funds will be used to pay for the cost of the proposed water system.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

The Original Developer entered into the 1992 Water System Agreement in 1992, ran into financial difficulties, and failed to construct the needed water infrastructure for Ritter Ranch and filed for bankruptcy. In 2004, SunCal purchased Ritter Ranch in a bankruptcy auction and claims that the 1992 Water System Agreement was included in the purchase.

The Restated Agreement will allow SunCal to build certain infrastructure changes that are needed for Ritter Ranch. It will also require the payment of new Water Supply Reliability Charges that your Board approved in May 2005. The Restated Agreement

provides for the developer to construct and fund the off-site and on-site water improvements to serve the various phases of Ritter Ranch. The Restated Agreement also allows facilities with excess capacity to be used by other developers. The cost associated with this project will be borne by the developer and other developments that participate in the use of excess capacity. Upon design and approval of the water system facilities and payment of the new Water Supply Reliability Charge, the District will issue will-serve letters to provide water to the various phases of Ritter Ranch. Following construction of these water system facilities, the developer will dedicate these facilities to the District. The District will operate and maintain these facilities upon acceptance.

ENVIRONMENTAL DOCUMENTATION

Under the California Environmental Quality Act (CEQA), prior to entering into the Restated Agreement, your Board must first review the environmental impacts of proposed changes to the water infrastructure from the project that was considered under the 1992 Mitigated Negative Declaration.

The Restated Agreement will not result in any substantial changes to the 1992 Water System Agreement that would implicate new significant environmental effects or a substantial increase in the severity of previously identified significant effects. There has not been any substantial change in circumstances or discovery of any substantial new information regarding the water system facilities' environmental effects or mitigation measures.

Accordingly, we recommend that your Board find, based upon substantial evidence, that this Addendum is appropriate under State CEQA Guidelines, Section 15164, and adopt the Addendum.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

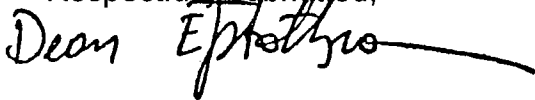
There will be no negative impact on current County services or projects during the performance of the recommended action.

The Honorable Board of Supervisors
August 10, 2006
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CONCLUSION

Please return two adopted copies of the Restated Agreement marked LACWWD and SUNCAL and two adopted copies of this letter to Public Works, Waterworks and Sewer Maintenance Division.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Dean Ephraim", with a long horizontal flourish extending to the right.

DONALD L. WOLFE
Director of Public Works

DDE:plg
BDL2255

Enc.

cc: Chief Administrative Office
County Counsel

AMENDED AND RESTATED WATER SYSTEM AGREEMENT BETWEEN
LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 40,
ANTELOPE VALLEY, AND PALMDALE HILLS PROPERTY, LLC

This Amended and Restated Water System Agreement (the "Agreement") is made by and between Palmdale Hills Property, LLC (the "Builder"), and Los Angeles County Waterworks District No. 40, Antelope Valley, a public county waterworks district formed pursuant to Division 16 of the State Water Code (the "District") (the Builder and the District, each a "Party" and collectively, the "Parties") on this 15th day of August of 2006.

RECITALS

WHEREAS, in 1992, District and Ritter Park Associates entered into Water System Agreement No. 66407 (the "1992 Water System Agreement") concerning water service to be provided to the Development; and

WHEREAS, Builder claims that it purchased the 1992 Water System Agreement in connection with the bankruptcy case ("Bankruptcy Case") entitled In Re Ritter Ranch Development, L.L.C., United States Bankruptcy Court for the Central District Court of California, Case No. 98-25043 GM; and

WHEREAS, the District filed litigation ("Litigation") disputing the fact that the 1992 Water System Agreement was assigned to Builder in the Bankruptcy Case but the parties have agreed to execute this Agreement in settlement of said litigation; and

WHEREAS, the Builder is currently the undisputed sole owner and developer of the Development; and

WHEREAS, the Development currently is located within the legal boundaries of the District; and

WHEREAS, the Builder is requesting potable water service for the Development from the District, which service the Builder acknowledges would be subject to the District's Rules and Regulations; and

WHEREAS, under Section 1-C-1c of the Rules and Regulations, the District may provide water service to the Development following completion by the Builder, at its sole cost and expense, and acceptance by the District, of the WSI necessary for the Development; and

WHEREAS, under Section 1-E-1 of the Rules and Regulations, when new water system facilities such as the WSI are needed for a development, the District must require a written agreement for the construction of water system facilities as a condition precedent to providing water service to the Development; and

WHEREAS, under the Rules and Regulations, the Builder must pay Water Supply Charges and Water Supply Reliability Charges to the District for the Development as a prerequisite to obtaining Conditional Will-Serve Letters and water service connections from the District; and

WHEREAS, under the Rules and Regulations, the District will apply certain credits against such Water Supply Charges and Water Supply Reliability Charge based on, among other consideration, the Builder's construction of the WSI for the Development, at the Builder's sole cost and expense; and

WHEREAS, under the Rules and Regulations, if the Builder completes a WSI that will have Excess Capacity used by Participants, the Builder is entitled to seek financial reimbursement from these Participants to offset the cost incurred by the Builder for the Excess Capacity relating to said WSI; and

WHEREAS, the District and the Builder are entering into this Agreement as contemplated under Sections 1-C-1c and 1-E-1 of the Rules and Regulations; and

WHEREAS, the Parties seek to amend and restate the entirety of the 1992 Water System Agreement such that this Agreement shall serve as the full and complete written agreement of the Parties concerning the subject matter described herein.

TERMS OF THE AGREEMENT

Therefore, in consideration of the recitals, terms, and conditions in this Agreement, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by all Parties, the Parties agree as follows:

1.0 DEFINITIONS

For the purposes of this Agreement, the following words, terms, phrases and their derivations have the meanings set forth below.

"Applicable Laws" means all federal, state, and local statutes, ordinances, permits, and regulations affecting or regulating the construction, installation, and/or operation of all WSI and In-Tract Facilities, including, without limitation, the California Environmental Quality Act (Cal. Public Resources Code §§ 21000 *et. seq.*) and all related requirements ("CEQA").

"AVEK" means the Antelope Valley-East Kern Water Agency.

"Billing Unit" means Billing Unit as said term is used in connection with "metered service" in Rule 2-A-1 of the Rules and Regulations.

"Builder" means Palmdale Hills Property, LLC.

"Board of Supervisors" means the Los Angeles County Board of Supervisors, acting as the governing Board of the District.

"City" means the City of Palmdale, California.

"CFD" means a Community Facilities District formed for operation of various services systems, including water, for the Development.

"CFD-Financed Improvements" means any portion of the WSI to be financed through a CFD.

"Conditional Will-Serve Letters" means Conditional Will-Serve Letters that the District employs as a conditional statement to provide a water service connection to any given property or location for the purpose of assisting an applicant in satisfying requirements relating to the service of potable water to record a subdivision map, in the form attached hereto as Exhibit D.

"Cost Value" means the following items, computed based on a written accounting delivered by the Builder to the District in a form acceptable to the District: i) payments to third-party contractors, consultants, and suppliers for the actual design, engineering, construction, and inspection of a WSI; ii) payments to third parties to acquire property or rights-of-way for the purpose of locating a WSI.

"Development" means that certain development project consisting of residential and other uses as identified in the summary of the Specific Plan approved by the City of Palmdale, commonly referred to as the Ritter Ranch Development, and located on the Ritter Property.

"District Engineer" means the Assistant Deputy Director of the Waterworks and Sewer Maintenance Division as stated in rule 1-A-12 of the Rules and Regulations.

"EDU" or "Equivalent Dwelling Units" means a unit of measurement equivalent to a typical single-family residence served by a 3/4-inch domestic water meter.

"Engineer" means the Builder's engineer employed pursuant to Section 3.5 of this Agreement.

"Excess Capacity" means capacity in the WSI that is greater than that required by the Development.

"Acceptance" or "Accepted" means execution by the District Engineer of a deed and bill of sale, in the form provided by the District, accepting a WSI or In-Tract Facility, gratis, as constructed and completed pursuant to the terms of this Agreement, thereby accepting ownership of the WSI or In-Tract Facility by the District.

"Hazardous Materials" means any substance, material, or waste which is or becomes regulated by any local governmental authority, the County of Los Angeles, the State of California, a regional governmental authority, or the United States Government, including, but not limited to, any material or substance which is (i) defined as a "hazardous waste," "extremely hazardous waste," or "restricted hazardous waste" under Sections 25115, 25117, or 25122.7, or listed pursuant to Section 25140 of the California Health and Safety Code, Division 20, Chapter 6.5 (Hazardous Waste Control Law), (ii) defined as a "hazardous substance" under Section 25316 of the California Health and Safety Code, Division 20, Chapter 6.8 (Carpenter-Presley-Tanner Hazardous Substance Account Act), (iii) defined as a "hazardous material," "hazardous substance," or "hazardous waste" under Section 25501 of the California Health and Safety Code, Division 20, Chapter 6.95 (Hazardous Materials Release Response Plans and Inventory), (iv) defined as a "hazardous substance" under Section 25281 of the California Health and Safety Code, Division 20, Chapter 6.7 (Underground Storage of Hazardous Substances), (v) petroleum, (vi) friable asbestos, (vii) polychlorinated biphenyls, (viii) listed under Article 9 or defined as "hazardous" or "extremely hazardous" pursuant to Article 11 of Title 22 of the California Administrative Code, Division 4, Chapter 20, (ix) designated as "hazardous substances" pursuant to Section 311 of the Clean Water Act (33 U.S.C. §13-17), (x) defined as a "hazardous waste" pursuant to Section 1004 of the Resource Conservation and Recovery Act, 42 U.S.C. §6901 et seq. (42 U.S.C. §6903), or (xi) defined as "hazardous substances" pursuant to Section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §9601 et seq.

"In-Tract Facilities" means in-tract water distribution facility(ies) not included in the WSI needed to serve the Development, which may consist of booster pumping stations, water mains, pressure reducing stations, water storage reservoirs and other facilities to provide a certain amount of equalizing, emergency, and fire storage for each phase of construction of the Development.

"In-Tract Plans and Specs" means the plans and specifications for the In-Tract Facilities for any given Phase of the Development, prepared by the Engineer and submitted by or on behalf of the Builder to the District for the District's review and approval prior to commencement of construction of any In-Tract Facility within the Phase.

"Non-Potable Water Uses" means irrigation of parks, golf courses, common landscaped areas, road landscaping, and any other areas where non-potable water can be legally utilized in lieu of potable drinking water.

"Participants" means those third parties designated as participants under rule 1-A-46 of the Rules and Regulations.

"Participation Letter" means a Participation Letter as said term is used in Rule 1-A-46 of the Rules and Regulations.

"Phase" means a phase of the Development as depicted in a tentative subdivision map submitted for approval to the City.

"Reimbursement Period" means the ten-year period following Acceptance of a WSI, per Rule 1-A-46 of the Rules and Regulations, during which period the Builder is permitted to collect reimbursement from Participants against the Cost Value of Excess Capacity in the WSI.

"Ritter Property" means that certain real property located in the City, as shown on attached Exhibit A and described as shown on attached Exhibit B.

"Rules and Regulations" means the Rules and Regulations of the Los Angeles County Waterworks Districts and the Marina del Rey Water System, as these may be amended and adopted under Water Code Section 55333 from time to time for the District by the Board of Supervisors.

"Settlement Agreement" means the settlement agreement of even-date herewith executed by the Parties to resolve the Litigation.

"Water Supply Charges" means Water Supply Charges, including, without limitation, capital improvement charges and the local system improvement charge as listed in Rule 1-A-44 of the Rules and Regulations, as said rule may be amended from time to time by the District pursuant to law.

"Water Supply Reliability Charge" means Water Supply Reliability Charge, consisting of a water banking fee, a groundwater supply fee, and a recycled water fee as defined pursuant to Rules 1-A-44 and 4-A-1t of the Rules and Regulations, as said rule may be amended from time to time by the District pursuant to law.

"Water System Rights of Way" means any and all rights of way and property rights as may be necessary to legally access, construct, operate, and maintain all WSI and In-Tract Facilities and appurtenances, in perpetuity.

"WSI" means the off-site water system improvements and/or facilities, as shown on attached Exhibit C-1, to be completed by the Builder pursuant to the schedule shown on attached Exhibit C-3 or as may have been constructed by third parties, that are needed to serve the Development, including as contemplated in Rules 1C-1c and 1-E-1 of the Rules and Regulations, consisting of off-site pumping stations, regulation stations, water transmission mains, gravity storage reservoirs, forebay reservoirs, groundwater injection and extraction wells, and any appurtenant facilities shown on attached Exhibit C-1, which, collectively and together with the In-Tract Facilities, are needed to meet adequate domestic water service and fire protection for the Development.

"WSI Plans and Specs" means the plans and specifications for the construction of WSI prepared by the Engineer on behalf of the Builder for review and approval by the District prior to commencement of construction of any WSI.

2.0 CONSTRUCTION AND FUNDING OF WSI AND IN-TRACT FACILITIES FOR DEVELOPMENT

- 2.0.1 Builder Solely Responsible for Design and Construction of WSI. Builder will be solely responsible for completing the design and construction of the WSI pursuant to the WSI Plans and Specs in accordance with the schedule set forth in Exhibit C-3, subject to the District's option to terminate this Agreement under Section 9.2 below should the Builder fail to complete the WSI by August 15, 2016.
- 2.0.2 Submission and Approval of WSI Plans and Specs. The Builder will submit the WSI Plans and Specs to the District for the District's review and pre-approval by the District. The Builder shall ascertain that the WSI Plans and Specs conform to the District's standards for design and construction of the WSI, and the Builder shall respond and modify the WSI Plans and Specs to conform to said standards upon the District's request. The District shall provide its written approval on the WSI Plans and Specs to the Builder upon the District's approval that the WSI Plans and Specs meet the District's standards.
- 2.0.3 Significance of District's Review and Approval of WSI Plans and Specifications. Although the District shall have the option, at its sole discretion, to provide comments to the Builder in response to the Builder's submission of WSI Plans and Specs, the District's review of the WSI Plans and Specs shall be solely for the purpose of ascertaining that the Builder is meeting the District's standards for completing the WSI. In no case shall the District be deemed the author of the WSI Plans and Specs, or the designer or builder of the WSI. The District's review and/or approval of the WSI Plans and Specs, the District's conduct of any inspections of the WSI, or the District's acceptance of said improvements shall not modify or void any warranties, releases, or indemnities in favor of the District, relieve the Builder of any obligation under this Agreement, or relieve the Builder of its responsibility for the Builder to competently design and construct the WSI without defects in materials or workmanship.
- 2.0.4 Builder to Fund Certain Engineering and Associated Costs of District. Within thirty (30) calendar days of the Builder's receipt of an invoice from the District, the Builder shall pay the District the District's costs associated with reviewing the WSI Plans and Specs, processing any right-of-way documents, and inspecting the construction of the WSI. The District shall not proceed with review of any WSI Plans and Specs submitted by Builder or with any inspection of WSI until all plan check or inspection fees have been paid to the District.

- 2.0.5 Phasing of WSI Construction. The Builder shall complete the construction of WSI in accordance with the required WSI and schedule provided in Exhibit C-3 of this Agreement. The Builder must complete all of the WSI by no later than August 15, 2016, or this Agreement shall terminate.
- 2.0.6 Builder's Participation in WSI Built by Others. Prior to the issuance of the first Conditional Will-Serve Letter for any Phase of the Development, Builder shall provide the District a Participation Letter evidencing Builder's satisfactory financial contribution for its participation in all WSI completed by third parties, as said WSI is identified in the attached Exhibit C-1.
- 2.1 Completion by Builder of In-Tract Facilities
- 2.1.0 Builder Solely Responsible for Design and Construction of In-Tract Facilities for Each Phase. Builder shall be solely responsible for completing the design and construction of the In-Tract Facilities for each Phase, at the Builder's sole cost and expense, pursuant to the approved In-Tract Plans and Specs for said Phase, prior to requesting from the District or the District providing the Builder any Conditional Will-Serve Letters for said Phase of the Development.
- 2.1.1 Submission and Approval of In-Tract Plans and Specifications. The Builder shall submit the In-Tract Plans and Specs to the District for the District's review and approval by the District. The Builder shall ascertain that the In-Tract Plans and Specs conform to the District's standards for design and construction of the In-Tract Facilities. The District shall provide its written approval on the In-Tract Plans and Specs to the Builder upon the District's approval that the In-Tract Plans and Specs meet the District's standards.
- 2.1.2 Significance of District's Review and Approval of In-Tract Plans and Specs. Although the District shall have the option, at its sole discretion, to provide comments to the Builder in response to the Builder's submission of In-Tract Plans and Specs, the District's review of the In-Tract Plans and Specs shall be solely for the purpose of ascertaining that the Builder is meeting the District's standards for completing the In-Tract Facilities. In no case shall the District be deemed the designer or builder of the In-Tract Facilities. The District's review and/or approval of the In-Tract Plans and Specs, the District's conduct of any inspections of the In-Tract Facilities, or the District's acceptance of said improvements shall not void or modify any releases, warranties or indemnities in favor of the District, relieve the Builder of any obligation under this Agreement, or relieve the Builder of its responsibility for the Builder to competently design and construct the In-Tract Facilities without defects in materials or workmanship.

2.1.3 Builder to Fund Certain Engineering and Associated Costs of District. Within thirty (30) calendar days of the Builder's receipt of an invoice from the District, the Builder shall pay the District the District's costs associated with reviewing the In-Tract Plans and Specs, processing any right-of-way documents, and inspecting the construction of the In-Tract Facilities. The District shall not proceed with review of any In-Tract Plans and Specs submitted by Builder or with any inspection of In-Tract Facilities until all plan check or inspection fees have been paid to the District.

2.2 Reimbursement by Participants of Off-site WSI of Builder's Cost Value of Excess Capacity

2.2.1 Reimbursement for Excess Capacity of Off-site WSI Financed by Builder. Upon the Builder delivering to the District the necessary accounting of the Cost Value of the WSI, the District shall require a Participation Letter signed by the Builder. This letter must be submitted to the District by all Participants that apply for water service during the Reimbursement Period by using Excess Capacity in the WSI that was built and financed entirely by the Builder (i.e., not a CFD-Financed Improvement). Builder shall **not** be entitled to reimbursement of any portion of the Cost Value of the WSI of any CFD-Financed Improvements.

2.2.2 If a Participant pays the Builder for the Participant's share of the use of the Excess Capacity in the WSI, based on the number of EDU's that would rely on Excess Capacity, Builder shall sign and issue a Participation Letter to said Participants.

2.3 Rights of Way

2.3.1 Builder to Acquire All Needed Rights of Way. The Builder shall have sole responsibility for the cost and expense of the acquisition of all Water System Rights of Way.

2.3.2 Transfer of All Rights of Way to District. Prior to the approval by the District of the WSI or In-Tract Facility, the Builder shall dedicate to the District, at the Builder's sole cost and expense, all necessary title and/or property rights to all Water System Rights of Way relating to the WSI and/or In-Tract Facility. Said title shall be free and clear from any liens or encumbrances, including mechanics' liens. Said dedication shall be accomplished by way of grant deed(s), easement agreement(s), in the form(s) acceptable to the District, in favor of the District and in form(s) recordable in the public records of the Los Angeles County Recorder's Office, and/or by way of tract maps acceptable to the District, completed and recorded pursuant to the California Subdivision Map Act.

- 2.4 Construction Water Service. At any time prior to completion of the Development, District shall sell to Builder, if Builder so chooses, temporary metered water service, if the District determines it to be available, from the District's existing water delivery system for the purpose of delivering water for the construction of the WSI or the Development. Such water may be used for grading, dust suppression, and construction revegetation. The District shall deem said construction water to be available so long as it is able to determine that an adequate supply of water is available to meet the needs of the District's existing customers without diminishing the District's current level of service. If Builder or AVEK provide a separate source of water for construction to the Development through existing or newly constructed facilities, the District shall deliver that construction water through District facilities, so long as the Builder pays the District the amounts contained in invoices from the District to cover the District's costs of delivery of said construction water and so long as delivering that water does not adversely impact the delivery of water to existing customers of District.
- 2.5 Bonds. For each phase of the WSI, Builder will furnish or cause to be furnished bonds securing completion of the construction of the WSI ("Completion Bond") and payment of obligations arising from the construction of WSI ("Payment Bond"). The Payment Bonds shall be in the amount of the contract price for the construction of the WSI for each applicable Phase. These bonds shall be in the form prescribed by the District and name the District as beneficiary. The surety on the Performance and Payment Bonds shall be an "admitted surety insurer" as defined by California Code of Civil Procedure Section 995.120.
- 2.6 Bids. In conformance with existing law, District will not require Builder to comply with District's public bid requirements because the Builder is financing the entirety of the WSI and In-Tract Facilities. The District makes no representations regarding the Builder's need to comply with public bid requirements relating to construction of CFD-Financed Improvements.

3.0 ADDITIONAL BUILDER'S DUTIES

3.1 Builder Responsible for Compliance with All Applicable Laws

The Builder shall design and build the WSI and In-Tract Facilities in strict compliance with all Applicable Laws, the WSI Plans and Specs, and the In-Tract Plans and Specs. The Builder shall obtain all necessary or applicable permits for the completion and operation of the WSI and the In-Tract Facilities at the Builder's sole cost and expense.

3.2 Inspection of Work

Builder shall inform the District's Lancaster office prior to commencement of construction of the WSI for each Phase within a minimum period of forty-eight (48) hours prior to commencement, or longer if needed to allow the District reasonable opportunity to inspect the construction of WSI and In-Tract Facilities. The District shall have access at all times following commencement of the construction of a WSI or In-Tract Facilities to conduct any inspection of any aspect of the construction of the WSI or In-Tract Facilities.

3.3 Acceptance of Dedication by District

District shall Accept the dedication of a WSI or an In-Tract Facility only upon the Builder having met all of the following steps for each WSI or In-Tract Facility: 1) completion of construction to the District's satisfaction; 2) payment of all related invoices related to the construction, materials, engineering, pavement repairs, permits and related costs; 3) transfer of any and all warranties from third parties to the District; 4) dedication to the District of all related Water System Rights of Way; and 5) delivery to the District of as-built plans in a form acceptable to the District.

3.4 Builder's Agreements with Contractors

The Builder shall be solely responsible to enter into and administer agreements with duly licensed third-party contractors for all work under this Agreement relating to the WSI and/or the In-Tract Facilities in compliance with all Applicable Laws. The Builder shall cause all contractors that commence construction of a WSI or In-Tract Facility to diligently pursue the completion of the WSI or In-Tract Facility to allow Acceptance.

The Builder shall be solely and completely responsible for supervision of each contractor's work so that the WSI and In-Tract Facilities are constructed in a workmanlike manner and in accordance with approved Plans and Specs and all Applicable Laws.

The Builder shall ascertain that each contractor fully complies with all laws regarding employment of aliens and others, and that all employees performing services hereunder meet the citizenship or alien status requirements contained in Federal and State statutes and regulations including, but not limited to, the Immigration Reform and Control Act of 1986 (P.L. 99-603). Builder's contractor(s) shall obtain, from all covered employees performing services hereunder, all verification and other documentation of employment and regulation as they currently exist and as they may be hereafter amended. Builder shall require its contractor to retain such documentation for all covered employees for the period

prescribed by law and shall indemnify, defend, and hold harmless District, its officers and employees, and the County of Los Angeles from employer sanctions and any other liability which may be assessed against District in connection with any alleged violation of Federal statutes or regulations pertaining to the eligibility for employment of persons performing services under Agreement.

In addition, the Builder shall include the following provisions in all of its agreements with third-party contractors:

- i) Assignment of Warranties of Others – Upon Acceptance of the WSI and/or In-Tract Facility, all contractors that worked on the facility shall assign to the District any and all guarantees and warranties provided to them by manufacturers and/or suppliers of materials or equipment used or applied in the construction of the WSI or In-Tract Facility.
- ii) Release of District – Each contractor's agreement shall contain legally enforceable clauses providing that the District and/or the County of Los Angeles shall bear no financial or other responsibility to the contractor in connection with the work performed under that agreement.

3.5 Written Accounting of Cost Value Provided to District for WSI for Each Phase

Within thirty (30) calendar days following the completion of each WSI, the Builder shall provide to the District a full written accounting of the Cost Value of the WSI completed.

3.6 Engineer

The Builder shall enter into a written agreement(s) to employ the services of an engineer or engineers, registered in the State of California and licensed in all applicable engineering disciplines required for completion of the WSI and In-Tract Facilities. The Engineer shall carry errors and omissions insurance in the amount of \$2,000,000 and name the District as an additional insured.

3.7 Administration

Builder agrees that it shall promptly designate an administrator, at Builder's sole expense, to administer and coordinate the provisions of Agreement. Builder also agrees that it will release, indemnify, and hold harmless the District for any action or failures to act by its administrator.

3.8 Insurance

Notwithstanding the Builder's requirements of Section 3.4 of this Agreement entitled "Builder's Agreements with Contractors," Builder shall also cause its contractors or subcontractors to provide and maintain at their own expense the following forms and amounts of insurance. Such insurance shall be provided by an insurer, licensed to provide insurance in the State of California to issue insurance policies for the required coverages and limits. Such insurance companies shall have a current A.M. Best's rating of at least "A-" and a financial size category of VIII or more. Evidence of such programs shall be delivered to District on an ongoing basis before the commencement of any work by said contractor or subcontractor relating to any WSI or In-Tract Facility. Such evidence shall specifically identify this Agreement and shall contain express conditions that District is to be given written notice by registered U.S. mail at least thirty (30) days in advance of any modification or termination of any program of insurance. Failure on the part of Builder to cause its contractors or subcontractors to procure or maintain required insurance shall constitute a default of this Agreement.

(1) Liability

Such insurance shall be primary to and not contributing with any other insurance maintained by District or County of Los Angeles, shall name District and the County of Los Angeles as insured, in addition to Builder, and shall include, but not be limited to:

- (a) Comprehensive General Liability Insurance endorsed for Premises - Operations, Products/Completed Operations, Explosions, Underground and Collapse, Contractual, Broad-Form Property Damage, and Personal Injury with a combined single limit of not less than \$2,000,000 per occurrence.
- (b) Comprehensive Auto Liability Insurance endorsed for all owned, non-owned, leased, and hired vehicles with combined single limit of at least \$1,000,000 per occurrence.

(2) Worker's Compensation

A program of Worker's Compensation Insurance shall be maintained in an amount and form to meet all applicable requirements of the Labor Code of the State of California, including Employers Liability with a \$500,000 limit, covering all persons providing service on behalf of Builder and all risks to such persons under Agreement.

(3) Property Damage

Builder's All Risk Insurance, including flood and earthquake coverage, covering the entire work against loss or damage shall be maintained. Insurance shall be in an amount equal to the replacement cost of the subject construction and improvements and endorsed for broad-form property damage. Deductibles not exceeding five percent (5%) of the construction cost and ten percent (10%) for earthquake will be permitted.

3.9 Builder's Indemnification of District

In addition to any other indemnity under this Agreement and without affecting and notwithstanding any warranties or insurance in favor of the District under any other provision in this Agreement, the Builder shall release, indemnify, defend (with counsel that the District may select, at District's sole and absolute discretion), protect and hold harmless the District and the County of Los Angeles and its special Districts (as third-party beneficiaries), their Supervisors, officers, employees, agents, and successors and assigns (collectively, "Indemnified Parties" or singularly, "Indemnified Party") from and against all claims, damages (including, without limitation special and consequential damages), including punitive damages, injuries, costs, response costs, losses, demands, debts, liens, liabilities, causes of action, suits, legal and administrative proceedings, interest, fines, charges, penalties and expenses (including without limitation attorneys', engineers', consultants', and expert witness fees and costs incurred in defending against any of the foregoing or in enforcing this indemnity) of any kind whatsoever paid, incurred, or suffered by or asserted against any Indemnified Party (collectively, the "Loss"), directly, or indirectly arising from or attributable to (i) the design, installation or construction of any WSI or In-Tract Facility; ii) any lien or encumbrance, including mechanics' liens resulting from work performed to construct a WSI or In-Tract Facility; iii) the operation of any WSI or In-Tract Facility prior to its Acceptance; iv) any act of negligence or willful misconduct of the Builder, and v) the presence or alleged presence of any Hazardous Materials either: a. caused by the Builder or its agents on or in the immediate vicinity of a WSI or In-Tract Facility or on any property transferred by Builder to the District; or b. present on or in the vicinity of a WSI or In-Tract Facility or on any property transferred by Builder to the District on or prior to the date of Acceptance. In addition to being an agreement enforceable under the laws of the State of California, the foregoing indemnity is intended by the parties to be an agreement pursuant to 42 U.S.C. Section 9607(e), Section 107(e) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), and California Health and Safety Code Section 25364. The Builder hereby waives its rights with respect to the subject matter described in clauses (i) through (v) of this Section that arise

under California Civil Code §1542, which statute states: "A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor." The provisions of this Section shall survive the termination or expiration of this Agreement.

3.10 Warranties

In addition to any remedy of the District available under this Agreement, under law, or in equity, Builder shall secure warranties of one year in duration from all contractors performing work on a WSI or In-Tract Facility and from their suppliers of material, pumps, pipelines, and equipment for repair or replacement of all such work or materials. The warranties shall inure to the benefit of Builder during the construction of WSI or In-Tract Facility and to the benefit of District upon completion and Acceptance of a WSI or In-Tract Facility.

In addition to the foregoing warranties from contractors or suppliers, and also in addition to any remedy of the District available under law or in equity, the Builder will be obligated to reimburse the District for the repair or replacement, at the District's sole and absolute discretion, of any defective WSI or In-Tract Facility.

The provisions of this Section shall survive the termination or expiration of this Agreement.

3.11 Rules and Regulations

The Builder agrees to be bound by the Rules and Regulations, as they may be amended. Notwithstanding the foregoing, in case of any discrepancies between any provision of the Rules and Regulations and this Agreement, to the extent allowed by law, the terms of this Agreement shall prevail.

3.12 Responsibility for WSI or In-Tact Facility prior to Acceptance

The Builder shall retain ownership, control of, liability and responsibility for, the WSI or In-Tract Facility and to operate and maintain the WSI or In-Tract Facility in good repair and in good working order, at the Builder's sole cost and expense, at all times before the District's Acceptance of the WSI or In-Tract Facility. The provisions of this Section shall survive the termination or expiration of this Agreement.

3.13 Responsibility/Notice of Dangerous Conditions

Builder shall provide good and adequate notice of each and every "dangerous condition," as defined in California Government Code Section

830, caused by the WSI or In-Tract Facility or the construction of any WSI or In-Tract Facility, and the Builder shall protect the public there from.

4.0 WATER CHARGES AND CREDITS

- 4.1 Builder shall receive full credit against all Local System Improvement (Frontage) Charges, Capital Improvement (Acreage) Charges, and Capital Improvement (Tank Capacity) Charges for the Development upon application for metered service pursuant to the District's Rules and Regulations and, also pursuant to the Rules and Regulations, against all other charges and fees for which the Rules and Regulations allow the issuance of credits.
- 4.2 For any given Phase for which the Builder seeks Conditional Will-Serve Letters, full credit against the Groundwater Supply Fee component of the Water Supply Reliability Charge will be given the Builder when said fee becomes due under Section 4-A-1t of the Rules and Regulations if the Builder has completed construction and following Acceptance of all potable water wells applicable to said Phase under Item 2 of Exhibit C-3.
- 4.3 Builder shall pay to the District for each Phase for which Builder seeks water service from District, the Water Banking Fee and Recycled Water Fee components of the Water Supply Reliability Charge, as required under the Rules and Regulations, prior to issuance of Conditional Will-Serve Letters. The amount of those components of the Water Supply Reliability Charge shall not be increased for Builder in connection with the Development prior to August 15, 2016, subject only to an annual increase under the annual construction cost index as published in the *Engineering News Record*.
- 4.4 Upon completion of the construction of the portion of the recycled water system that is located along Elizabeth Lake Road and that is shown as part of the approved backbone recycled water transmission system depicted in the District's *Facilities Planning Report For The Antelope Valley Recycled Water Project* of March 7, 2006, prepared by Kennedy/Jenks Consultants (the "Off-site Backbone Improvements"), (commencing on 30th Street West and proceeding in a westerly direction along Elizabeth Lake Road for a distance of approximately 1.5 miles) and upon Acceptance by the District of the Off-site Backbone Improvements, Builder shall receive a credit against the Recycled Water Fee component of the Water Supply Reliability Charge in an amount that is equivalent to the actual costs paid to third parties by the Builder, computed based on payments to third-party contractors, consultants, and suppliers for the actual design, engineering, construction, and inspection of a WSI, added to payments to third parties to acquire property or rights of way for the purpose of locating the Off-site Backbone Improvements, as shown in a written accounting delivered by the Builder to the District in a form

acceptable to the District. The Parties acknowledge that a 24" Untreated/Recycled/Reclaimed Water Transmission Main in Elizabeth Lake Road from future Bridge road to a reservoir in Ritter Ranch Planning Area 1 is deemed as an Off-site Backbone Improvement that the Builder may opt to construct and submit to the District for a corresponding credit under this Section.

5.0 DISTRICT DUTIES

5.1 Issuance of Statement of Water Service (Conditional Will-Serve Letter)

Subject to all of the terms and conditions set forth in this Agreement and the Rules and Regulations, if the Builder is in full compliance with this Agreement and the Rules and Regulations, the District shall issue Conditional Will-Serve Letters to the Builder for each Phase upon the Builder meeting the following conditions:

- (1) Except for wells and appurtenant facilities unrelated to the Phase, approval by District of WSI Plans and Specs will be required prior to issuing any Conditional Will-Serve Letter for any Phase; and
- (2) The District must have approved all In-Tract Plans and Specs for said Phase; and
- (3) Subject to receiving the credits that apply under Section 4 above, the Builder must have paid the Water Supply Reliability Charge and all other applicable fees or have constructed all appropriate off-site WSI for said Phase.

5.2 Terms of Future Water Service Agreements With Third Parties

The Builder shall be entitled to seek an amendment to this Agreement to obtain an equivalent provision to that which the District may agree in any future written water system agreement adopted by the Board of Supervisors within District's territorial boundaries, concerning: i) the length of term of said water system agreement; ii) fees, charges and credits; iii) the amount of insurance required for construction of a water system; iv) the duration of Conditional Will-Serve Letters; v) the assurance or priority of water supply; or v) the terms of reimbursement by third-party participants for the excess capacity in any water system constructed by the future developer. Should the Builder deliver written notice to the District of the Builder's desire to amend this Agreement to apply the foregoing provisions, the District and the Builder shall enter into a corresponding amendment to this Agreement. Should the District refuse to honor said amendment, the Builder's sole recourse shall be to seek judicial relief to reform

this Agreement to achieve said amendment, and Builder shall not be entitled to any damages, the recovery of attorney's fees, or any other remedy of any nature whatsoever.

5.3 Irrigation Water

District to allow Builder to use water for irrigation/slopes in this priority: a) reclaimed water, if available and practicable; b) untreated water if available and practicable; and c) potable water, if Builder complies with all of the District's standards and requirements and constructs and completes all additional needed WSI to allow said deliveries, including amending Exhibit C-1.

6.0 ASSIGNMENT AND TRANSFER

6.1 Approval of Assignments

Any assignment by the Builder of this Agreement or any Conditional Will-Serve Letter must first be approved in writing by the District. Any transfer of a majority interest in Builder shall be deemed an assignment that will require prior written approval by the District to become effective.

6.2 Prior Notice Of Transfer Of Development

Builder shall provide at least forty-five (45) days' advance written notice to District of any and all sales or transfers by Builder of any portion of the Development to any proposed developer. Builder shall obtain written acknowledgment of the terms and conditions of this Agreement from said proposed transferee, duly executed by its authorized representative, including, without limitation, for any Phase of the Development.

7.0 TERM OF AGREEMENT

This Agreement shall commence upon the Builder fulfilling its obligations under Sections II.2, II.4, II.5, and II.7.A of the Settlement Agreement. Subject to the District's right to terminate this Agreement under Section 9.2 below, this Agreement shall expire on August 15, 2021.

8.0 NOTICE OF APPROVALS

Any required written document or other Notice (herein "Notice") which either party may desire to give to the other party must be in writing and may be given by personal delivery, telecopy, Federal Express or similar overnight service, by United States Express Mail, or Certified Mail return receipt requested with a signed receipt by the party to whom the Notice is addressed, at the address of the party set forth below or at any other address as the parties may later designate in writing:

- (1) To Builder: Mr. Frank Faye
Regional President
SunCal Companies
Los Angeles/Ventura Division
21900 Burbank Boulevard, Suite 114
Woodland Hills, CA 91367

With a copy to:

Edward J. Casey, Esq.
Weston Benshoof Rochefort
Rubalcava & MacCuish LLP
333 South Hope Street, 16th Floor
Los Angeles, CA 90071

- (2) To District: Los Angeles County
Waterworks District No. 40, Antelope Valley
P.O Box 1460
Alhambra, California 91802-1460
Attention: Manuel del Real
Assistant Deputy Director

With a copy to:

Frederick W. Pfaeffle, Esq.
Principal Deputy County Counsel
County of Los Angeles
Office of the County Counsel
648 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

If a Party's address changes, it is the sole obligation of that Party to inform the other Party in writing within thirty (30) days by the method of Notice provided herein.

9.0 TERMINATION AND DEFAULT

9.1 In the event of any Party's default under this Agreement, the Party asserting the default shall notify the other Party in writing of the default and describe the nature of the default. Said defaulting Party shall have thirty (30) days to cure the default or if such default cannot be cured within thirty (30) days, said defaulting Party shall commence to cure the default within the thirty (30) day period and diligently prosecute the cure to completion thereafter to the reasonable satisfaction of the other Party. If the defaulting Party fails to comply with the cure provisions of this Section, then the other Party may, in addition to all other legal remedies available to it, seek to terminate this Agreement. Notwithstanding the

forgoing, failure to provide notice of any default shall not be deemed a waiver of said default or of any remedy under this Agreement, in law, or in equity.

9.2 Except for the potable water wells described in item 2. of Exhibit C-3, if the Builder does not complete the construction of the entire off-site WSI and said WSI is not Accepted by August 15, 2016, as provided in Section 2.0.5, above, then the District may, in its sole and absolute discretion, elect to terminate this Agreement. If the District seeks to terminate this Agreement pursuant to this Section, the District shall provide the Builder with thirty (30) days' written notice prior to said termination.

10.0 GOVERNING LAW

This Agreement and any instrument, certificates, or other writing herein provided for shall be governed by and construed and enforced in accordance with the laws of the State of California.

11.0 INVALIDITY

Nothing contained in Agreement or in any instrument, certificate, or other writing herein provided for shall be construed to require the commission of any act contrary to law. Wherever there is any conflict between any provision of this Agreement or of any instrument, certificate, or other writing herein provided for and any material statute, law, ordinance, or regulation, the statute, law, ordinance or regulation shall prevail, except that the provision so affected shall be curtailed and limited only to the extent necessary to bring it within the legal requirements and the remainder of that provision and of the other provisions of the Agreement and of any instrument, certificate, or other writing herein provided for shall continue in full force and effect and shall in no way be affected, impaired, or invalidated, and the Parties shall immediately employ their best efforts in good faith to negotiate a comparably valid provision to substitute for the one deemed to be contrary to law.

12.0 SEVERABILITY

In the event any portion of Agreement to be invalid, illegal, or unenforceable, such portion shall be severed from Agreement, the remaining provisions will not be affected unless their enforcement under the circumstances would be unreasonable, inequitable, or would otherwise frustrate the purposes of the Agreement. The Parties will negotiate in good faith to replace the severed portion of Agreement with a comparably valid provision.

13.0 AMENDMENTS

This Agreement may be amended, modified, superseded, canceled, or terms extended only by mutual written consent executed by the Parties. Oral

modifications are void. A construction change order does not constitute an amendment.

14.0 NO COUNTERPARTS

This Agreement or any amendment or supplement hereto, may not be executed in counterparts.

15.0 PARTIES IN INTEREST

Each and every provision contained herein shall be binding upon and shall inure to the benefit of the Parties, their authorized respective assigns and successors in interest, whether said assigns and successors are private parties or public entities. Both Parties shall require that their authorized respective assigns and successors in interest are to be bound by and to uphold each and every provision of this Agreement. Within five (5) business days following the full execution of this Agreement, the Parties shall cause a Memorandum of this Agreement in a form to be agreed upon by the Parties to be recorded against the Ritter Property in the public records with the Los Angeles County Recorder.

16.0 NO THIRD-PARTY BENEFICIARIES

This Agreement applies only to the Builder, the District, and the Indemnified Parties only and does not create rights in favor of others not a party to Agreement.

17.0 FURTHER ASSURANCES

Each of the Parties hereto shall promptly execute and deliver any and all additional papers, documents, and other assurances, and shall do any and all acts and things reasonably necessary in connection with the performance of their obligations hereunder and to carry out the intent of the Parties.

18.0 ENTIRE AGREEMENT

This Agreement and its attachments contain the entire agreement and understanding between the Parties concerning the subject matter of this Agreement and the attachments hereto and supersede and replace any and all prior or contemporaneous written or oral negotiations, proposed agreements, or agreements concerning that subject matter. There are no representations to induce consent to this Agreement other than those expressly contained in the Agreement and the attachments.

19.0 JOINT VENTURE

This Agreement does not create a joint venture, partnership, or similar relationship between the District and the Builder.

20.0 AUTHORITY TO EXECUTE

Each representative of the Parties affixing his or her signature below represents and warrants that he or she has the full legal authority to bind his or her respective Party to all of the terms, conditions, and provisions of this Agreement, that his or her respective Party has the full legal right, power, capacity, and authority to enter into this Agreement and perform all of the obligations herein, and that no other approvals or consents are necessary from his or her respective Party in connection therewith.

21.0 MEDIATION

Prior to the filing of any litigation concerning a dispute arising under this Agreement, the Parties shall participate in non-binding mediation for a period of time not to exceed two (2) months from the time that one Party provides written notice to the other Party of such a dispute and its intent to invoke the dispute resolution procedures described in this paragraph. Such mediation shall take place before a mediator jointly selected by the Parties, and Builder and District shall equally bear that mediator's fees. If said mediation does not resolve the dispute within the time period described in the preceding sentence, then any Party may file litigation concerning said dispute. In any such litigation, the prevailing shall recover its reasonable attorneys' fees incurred in such an action.

22.0 JOINT AUTHORSHIP

Any uncertainty or ambiguity in this Agreement shall not be construed against any Party, and this Agreement shall be construed as though jointly prepared by all Parties.

23.0 INDEPENDENT INVESTIGATION

Each Party conducted an independent investigation of the facts to the extent such Party deemed necessary and prudent prior to entering to this Agreement and relied solely on its own investigation and facts in entering into this Agreement. Each Party received independent legal advice in connection with such Party's decision to enter into this Agreement. Each Party has read and fully understood the entire Agreement prior to executing it.

24.0 FORCE MAJEURE

The Parties shall discharge their respective obligations in this Agreement in accordance with the time limitations set forth in this Agreement provided, however, that said obligations and time limitations shall be extended for a period or periods of time equal to any period of delay caused by fire or other casualty, war, and acts of God such as earthquakes if the Builder provides written notice to the District within one week of the event and if the parties agree to the length of the extension. Promptly after submission of that notice, the Parties shall meet and cooperate with one another to ascertain the nature and extent of the condition contained in the Builder's notice, ways to remove or eliminate said condition, and the reasonable duration of the needed extension.

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto have caused Agreement to be executed by their respective officers, duly authorized by Palmdale Hills Property, LLC, on August ___, 2006, and by the LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 40, ANTELOPE VALLEY, on August ___, 2006.

ATTEST:

SACHI A. HAMAI
Executive Officer of the
Board of Supervisors
of the County of Los Angeles

By _____
Deputy

LOS ANGELES COUNTY
WATERWORKS DISTRICT NO. 40,
ANTELOPE VALLEY

By _____
Mayor, Board of Supervisors of
the County of Los Angeles as
Governing body thereof

APPROVED AS TO FORM:

RAYMOND G. FORTNER, JR.
County Counsel

By _____
Deputy

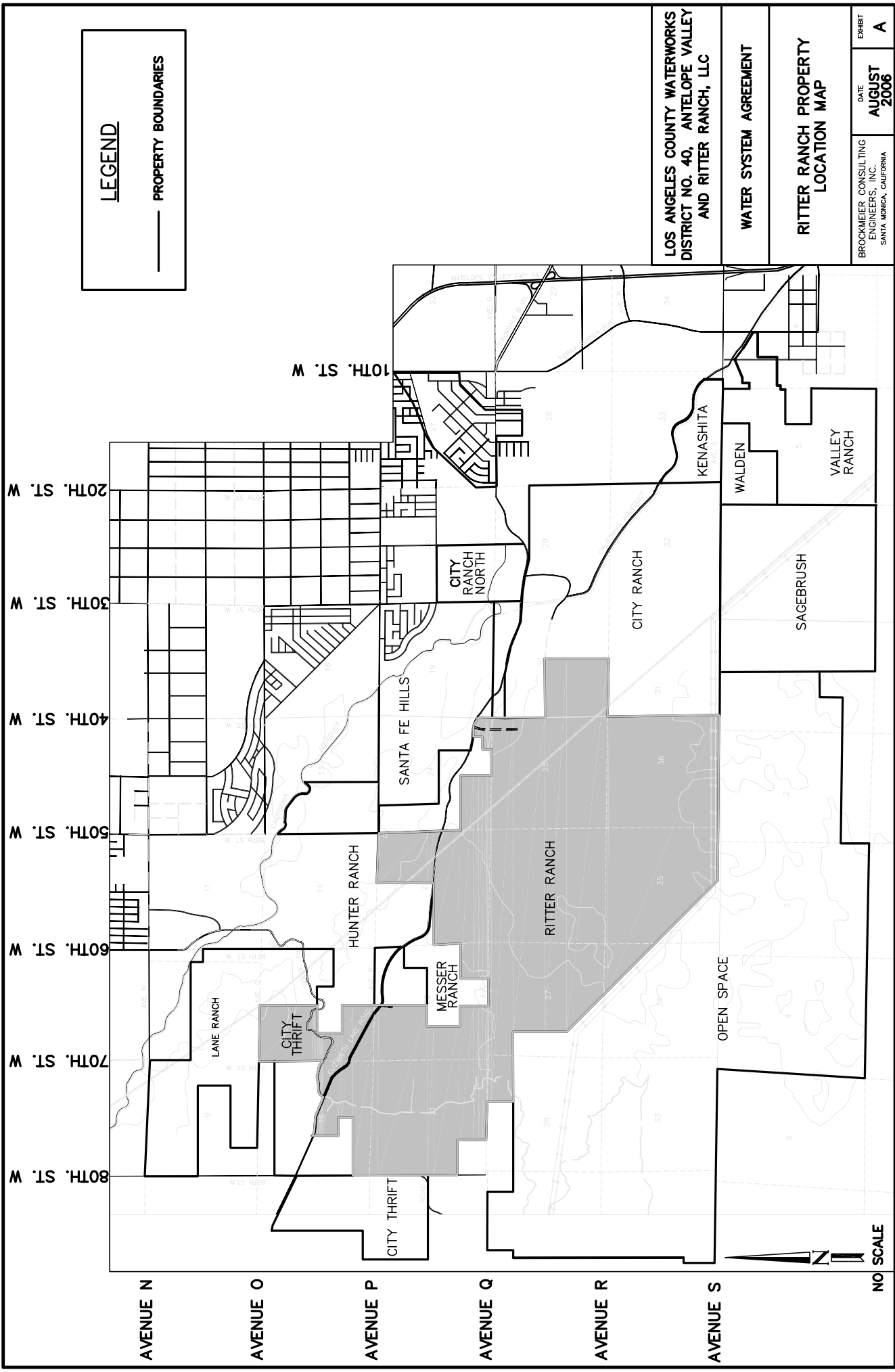
PALMDALE HILLS PROPERTY, LLC
A California Limited Liability Company

By _____
Frank Faye
Its Regional President

APPROVED AS TO FORM:

WESTON BENSHOOF ROCHEFORT
RUBALCAVA & MacCUISH LLP

By _____
Edward J. Casey



LEGEND
— PROPERTY BOUNDARIES

LOS ANGELES COUNTY WATERWORKS
DISTRICT NO. 40, ANTELOPE VALLEY
AND RITTER RANCH, LLC

WATER SYSTEM AGREEMENT

RITTER RANCH PROPERTY
LOCATION MAP

BROCKMEIER CONSULTING ENGINEERS, INC. SANTA MONICA, CALIFORNIA	DATE AUGUST 2006	EXHIBIT A
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NO SCALE

EXHIBIT B

LEGAL DESCRIPTION OF RITTER RANCH

BOUNDARY DESCRIPTION

BEING A PORTION OF TOWNSHIP 6 NORTH, RANGE 12 WEST; AND TOWNSHIP 6 NORTH. RANGE 13 WEST; ALL IN THE SAN BERNARDINO MERIDIAN ACCORDING TO THE OFFICIAL PLATS THEREOF; IN THE CITY OF PALMDALE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA. BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SECTION 36, TOWNSHIP 6 NORTH, RANGE 13 WEST, SAID POINT BEING M E COMMON CORNER, ON THE SOUTH BOUNDARY LINE OF TOWNSHIP 6 NORTH, RANGE 13 WEST AND TOWNSHIP 6 NORTH. RANGE 12 WEST; THENCE NORTHERLY. ALONG THE EAST LINE OF SAID SECTION 36. TO THE NORTHEAST CORNER THEREOF, SAID POINT ALSO BEING THE SOUTHWEST CORNER. OF SECTION 30, TOWNSHIP 6 NORTH, RANGE 12 WEST; THENCE EASTERLY, ALONG THE SOUTH LINE OF SAID SECTION 30, TO THE SOUTH 114 CORNER OF SAID SECTION 30; THENCE NORTHERLY, ALONG THE NORTH-SOUTH MIDSECTION LINE OF SAID SECTION 30. TO THE CENTER 114 CORNER OF SAID SECTION 30; THENCE WESTERLY, ALONG M E EAST-WEST MIDSECTION LINE OF SAID SECTION 30. TO THE WEST 114 CORNER THEREOF, SAID POINT ALSO BEING THE EAST 114 CORNER OF SECTION 25, TOWNSHIP 6 NORTH, RANGE 13 WEST THENCE NORTHERLY, ALONG THE EAST LINE OF SAID SECTION 25, TO THE NORTHEAST CORNER THEREOF, SAID POINT ALSO BEING THE SOUTHEAST CORNER OF SECTION 24, TOWNSHIP 6 NORTH, RANGE 13 WEST; THENCE NORTHERLY. ALONG THE EAST LINE OF SAID SECTION 24 TO THE SOUTH LINE OF ELIZABETH LAKE ROAD AS DESCRIBED IN A DEED TO THE CITY OF PALMDALE RECORDED AS INSTRUMENT NUMBER 951761801, OFFICIAL RECORDS OF SAID COUNTY; THENCE WESTERLY ALONG THE SOUTH LINE OF ELIZABETH LAKE ROAD THROUGH THE SEVERAL COURSES AS DESCRIBED ABOVE TO THE EAST LINE OF THE LAZY 'T' RANCH AS DESCRIBED IN A DOCUMENT RECORDED NOVEMBER 27. 1978 AS INSTRUMENT NO. 78-1312819, OFFICIAL RECORDS. OF SAID COUNTY; THENCE SOUTHERLY ALONG SAID EAST LINE TO THE SOUTH LINE OF SAID INSTRUMENT NO. 78-1312819; THENCE WESTERLY ALONG THE SOUTH LINE OF SAID INSTRUMENT NO. 78-131 2819 TO THE WEST LINE OF THE PARCEL OF LAND DESCRIBED IN A DOCUMENT RECORDED APRIL 10, 1958 AS INSTRUMENT NO. 262, OFFICIAL RECORDS OF SAID COUNTY; THENCE SOUTHERLY, ALONG SAID WEST LINE TO THE SOUTH LINE OF SECTION 24, TOWNSHIP 6 NORTH, RANGE 13 WEST; THENCE WESTERLY ALONG THE SOUTH LINE OF SAID SECTION TO THE SOUTH 114 CORNER THEREOF: THENCE NORTHERLY ALONG THE NORTH-SOUTH MIDSECTION LINE OF SAID SECTION 24, TO THE SOUTH 1/16 CORNER THEREON; THENCE WESTERLY ALONG THE SOUTH 1/16 LINE OF SAID SECTION 24. TO THE WEST LINE OF SECTION 24, SAID LINE BEING ALSO THE EAST LINE OF SECTION 23, TOWNSHIP 6 NORTH, RANGE 13 WEST; THENCE NORTHERLY ALONG M E EAST LINE OF SAID SECTION 23 TO THE NORTHEAST CORNER THEREOF, THENCE WESTERLY ALONG THE

NORTH LINE OF SAID SECTION 23 TO THE NORTH 114 CORNER THEREOF; THENCE SOUTHERLY ALONG THE NORTH-SOUTH MIDSECTION LINE TO THE CENTER OF SAID SECTION 23; THENCE WESTERLY, ALONG THE EAST-WEST MIDSECTION LINE TO THE WEST LINE OF SAID SECTION 23, SAID LINE BEING ALSO THE EAST LINE OF SECTION 22, TOWNSHIP 6 NORTH, RANGE 13 WEST AS DEFINED BY BRASS CAP MONUMENTS SET BY THE LOS ANGELES COUNTY SURVBAYOR IN 1936; THENCE SOUTHERLY ALONG SAID EAST LINE OF SECTION 22. TO THE NORTH LINE OF PARCEL 'F' AS SHOWN ON LOT LINE ADJUSTMENT NO. 445 RECORDED JANUARY 11, 1994 AS INSTRUMENT NO. 94-61429. OFFICIAL RECORDS OF SAID COUNTY; THENCE WESTERLY ALONG THE NORTH LINE OF SAID PARCEL 'F' TO THE NORTHWEST CORNER THEREOF; THENCE SOUTHERLY ALONG THE WEST LINE OF SAID PARCEL 'F' TO THE SOUTH LINE OF SECTION 22AS DESCRIBED ABOVE; THENCE WESTERLY ALONG THE SOUTH LINE OF SAID SECTION 22 TO THE GENERAL EASTERLY LINE OF PARCEL 'A' AS SHOWN ON SAID LOT LINE ADJUSTMENT NO. 445; THENCE NORTHERLY, WESTERLY, SOUTHERLY, WESTERLY, NORTHERLY, EASTERLY. NORTHERLY, EASTERLY, NORTHERLY AND EASTERLY ALONG THE SEVERAL COURSES IN THE SAID GENERAL EASTERLY LINE OF PARCEL 'A' TO THE EAST LINE OF SAID SECTION 22 AS DESCRIBED ABOVE; THENCE NORTHERLY ALONG SAID EAST LINE OF SECTION 22, TO THE INTERSECTION WITH THE SOUTH RIGHT OF WAY LINE OF ELIZABETH LAKE ROAD, 100 FEET WIDE, AS SHOWN IN A DEED TO THE CITY OF PALMDALE RECORDED DECEMBER 15, 1997 AS INSTRUMENT NO. 97-1962148, OFFICIAL RECORDS OF LOS ANGELES COUNTY; THENCE WESTERLY ALONG THE SOUTH LINE OF ELIZABETH LAKE ROAD THROUGH THE SEVERAL COURSES AS DESCRIBED ABOVE TO THE INTERSECTION WITH THE CENTERLINE OF ELIZABETH LAKE ROAD AS DESCRIBED IN A DOCUMENT RECORDED SEPTEMBER 13, 1929 AND FILED IN BOOK 9362 AT PAGE 119, OFFICIAL RECORDS OF SAID COUNTY; THENCE NORTHWESTERLY ALONG SAID CENTERLINE THROUGH THE SEVERAL COURSES DESCRIBED THEREIN TO THE LINE BETWEEN SECTIONS 15 AND 22, TOWNSHIP 6 NORTH, RANGE 13 WEST AS DEFINED BY BRASS CAP MONUMENTS SET BY THE LOS ANGELES COUNTY SURVEYOR IN 1936; THENCE EASTERLY ALONG SAID LINE TO THE INTERSECTION OF SAID LINE WITH THE NORTHERLY RIGHT OF WAY OF ELIZABETH LAKE ROAD 60 FEET WIDE AS SHOWN ON LOS ANGELES COUNTY SURVEYORS MAP NUMBER 51352 SHEET 1, RECORDS OF SAID COUNTY ENGINEER; THENCE NORTHWESTERLY ALONG SAID NORTHERLY RIGHT OF WAY LINE AND ALONG SEVERAL COURSES THEREIN TO THE LINE BETWEEN SECTIONS 15 AND 16 AS SHOWN ON SAID MAP; THENCE SOUTHERLY ALONG SAID SECTION LINE TO THE CENTERLINE OF ELIZABETH LAKE ROAD AS SHOWN ON SAID MAP; THENCE NORTHWESTERLY ALONG THE SEVERAL COURSES IN SAID CENTERLINE TO THE INTERSECTION WITH THE SOUTH RIGHT OF WAY LINE OF ELIZABETH LAKE ROAD, 100 FEET WIDE, AS SHOWN IN A DEED TO THE CITY OF PALMDALE RECORDED DECEMBER 15, 1997 AS INSTRUMENT NO. 97-1962147, OFFICIAL RECORDS OF LOS ANGELES COUNTY; THENCE NORTHERLY ALONG THE SEVERAL COURSES IN SAID SOUTHERLY RIGHT OF WAY LINE TO ITS INTERSECTION WITH THE NORTH-SOUTH MIDSECTION LINE OF SECTION 16, TOWNSHIP 6 NORTH, RANGE 13 WEST, SAN BERNARDINO MERIDIAN; THENCE NORTHERLY ALONG SAID MIDSECTION LINE TO THE NORTH 114 CORNER OF SAID-SECTION 16; THENCE WESTERLY ALONG THE EAST-WEST MIDSECTION LINE OF SAID SECTION 16, TO THE WEST LINE OF THE EAST TWO THIRDS OF THE

NORTHEAST QUARTER OF M E SOUTHWEST QUARTER OF SAID SECTION 16; THENCE SOUTHERLY ALONG SAID LINE 990 FEET MORE OR LESS TO THE SOUTH, NORTH, SOUTH 11256 LINE OF SAID SECTION 16; THENCE EASTERLY ALONG SAID LINE TO THE CENTER, SOUTH, NORTH, SOUTH 11256 CORNER OF SAID SECTION 16; THENCE SOUTHERLY ALONG THE NORTH-SOUTH MIDSECTION LINE TO THE CENTER, SOUTH, SOUTH 1164 CORNER OF SAID SECTION 16; THENCE WESTERLY ALONG THE SOUTH, SOUTH 1164 LINE OF SAID SECTION TO THE SOUTH 1164 CORNER ON THE LINE BETWEEN SECTIONS 16 AND 17 OF SAID TOWNSHIP AND RANGE; SAID POINT ALSO BEING ON THE CENTERLINE OF BOUQUET CANYON ROAD; THENCE SOUTHERLY ALONG THE WEST LINE OF SAID SECTION 16 AND THE CENTERLINE OF BOUQUET CANYON ROAD, AS PER LOS ANGELES COUNTY SURVEYORS MAP C.S.B. 4381 1. TO THE SOUTHWEST CORNER OF SAID SECTION 16, SAID POINT ALSO BEING THE NORTHWEST CORNER OF SECTION 21, TOWNSHIP 6 NORTH. RANGE 13 WEST; THENCE SOUTHERLY. CONTINUING ALONG SAID ROAD CENTERLINE AND SAID WEST LINE OF SECTION 21, TO THE BEGINNING OF A CURVE TO THE RIGHT IN SAID CENTERLINE OF BOUQUET CANYON ROAD; THENCE SOUTHERLY, LEAVING SAID ROAD CENTERLINE, CONTINUING ALONG SAID WEST LINE OF SECTION 21. TO M E SOUTH 1116 LINE OF SAID SECTION 21; THENCE EASTERLY ALONG THE SOUTH 1/16 LINE OF SAID SECTION 21, TO THE WEST 1116 LINE OF SAID SECTION 21; THENCE SOUTHERLY ALONG THE WEST 1116 LINE OF SAID SECTION 21 TO THE SOUTH LINE OF SAID SECTION 21; THENCE EASTERLY, ALONG THE SOUTH LINE OF SAID SECTION 21. THE SAME BEING NORTH LINE OF SECTION 28, TOWNSHIP 6 NORTH, RANGE 13 WEST, TO THE NORM 114 CORNER OF SAID SECTION 28; THENCE SOUTHERLY ALONG THE NORTH-SOUTH MIDSECTION LINE OF SAID SECTION 28, TO THE NORTH 1116 LINE OF SAID SECTION 28; THENCE WESTERLY, ALONG THE NORTH 1116 LINE OF SAID SECTION 28 TO THE WEST LINE OF SAID SECTION 28, THE SAME BEING AT THE SOUTHEAST CORNER OF GOVERNMENT LOT 1 OF SECTION 29, TOWNSHIP 6 NORTH. RANGE 13 WEST; THENCE SOUTHERLY ALONG THE LINE BETWEEN SAID SECTIONS 28 AND 29, TO THE SOUTHWEST CORNER OF SAID SECTION 28, SAID CORNER BEING THE NORTHWEST CORNER OF SECTION 33, TOWNSHIP 6 NORTH, RANGE 13 WEST; THENCE EASTERLY ALONG THE LINE BETWEEN SAID SECTIONS 28 AND 33 TO THE NORTHEAST CORNER OF SAID SECTION 33, THE SAME BEING THE NORTHWEST CORNER OF SECTION 34. TOWNSHIP 6 NORTH, RANGE 13 WEST; THENCE SOUTHERLY ALONG THE LINE BETWEEN SAID SECTIONS 33 AND 34 TO M E SOUTH BOUNDARY OF TOWNSHIP 6 NORTH, RANGE 13 WEST; THENCE EASTERLY ALONG SAID SOUTH BOUNDARY LINE AND THE SOUTH LINES OF SECTIONS 34,35 AND 36, TOWNSHIP 6 NORTH, RANGE 13 WEST, SAN BERNARDINO MERIDIAN. TO THE POINT OF BEGINNING.

MEETS AND BOUNDS DESCRIPTIONS CONTAINED HEREIN ARE REFERENCED TO CORNER MARKINGS FOR SUBDIVISION OF SECTION LINES AS PER THE 1973 BUREAU OF LAND MANAGEMENT MANUAL OF SURVEYING INSTRUCTIONS.

Exhibit C-1

OFFSITE BACKBONE Water System Requirements

Item No.	Installed	Description of Facilities
1.		Construct 14-800 gpm (11,200 gpm) potable water wells in the vicinity of Avenue G-12 and 70th Street West. (13 Operating and 1 stand-by)
2.		Construct 12-inch to 36-inch well discharge mains in the vicinity of Avenue G & H and 60th Street West to 90th Street West. Cost participation by other developers.
3.		Construct chloramination station in the vicinity of Avenue G-12 and 70th Street West.
4.		Construct a treated well water forebay/reservoir and piping in the vicinity of Avenue G-12 and 70th Street West.
5.		Construct a 10,700 gpm pumping station (2555 PZ) in the vicinity of Avenue G-12 and 70th Street West. (Future capacity will be 20,000 gpm.) Cost share with other developers.
6.		Construct a 10,700 gpm pumping station (2914 PZ) in the vicinity of Avenue L-12 and 60th Street West. (Future capacity will be 20,000 gpm.) Cost share with other developers.
7.		Construct a 10,700 gpm pumping station (2911 PZ) in the vicinity of Avenue O-14 and 25th Street West. Facility will boost water from future AVEK Turnout and 48-inch Parallel South Feeder. (Future capacity will be 20,000 gpm.) Cost share with other developers.
8.		Construct a 36-inch diameter water transmission main in 25th Street West from Avenue O-8 to Avenue P. Cost share with other developers.
9.	x (KBH)	Payment for cost share of existing 36-inch Water Transmission Main in 25th Street West from Avenue P to 5,300 feet south of Avenue P. Reimburse KB Homes for cost share.
10.	x (KBH)	Payment for cost share of existing 36-inch Water Transmission Main in 25th Street West from 5,300 feet south of Avenue P to Elizabeth Lake Road (ELR). Reimburse KB Homes for cost share.
11.	x (KBH)	Payment for cost share of existing 36-inch Water Transmission Main in Elizabeth Lake Road from 25th Street West to future Bridge Road. Reimburse KB Homes for cost share.
12.		Add 10,700 gpm of capacity in the Elizabeth Lake Road Pump Station (3240 PZ) in the vicinity of 25th Street West. (Future capacity will be 20,000 gpm.) Cost share with Anaverde/City Ranch.
13.		Construct a 30-inch Water Transmission Main in Elizabeth Lake Road from future Bridge Road to future Ranch Center Drive.
14.		Construct a 30-inch Water Transmission Main in Elizabeth Lake Road from future Ranch Center Drive to the 3240 PZ West Reservoir in PA-1.
15.		Construct a 20,000 gpm (44.5 cfs) AVEK Turnout near the intersection of O-8 and 25th Street West.
16.		Construct a 24-inch Looping Redundant Water Transmission Main, Avenue S between Ranch Center Drive and Ritter Ranch East Tract Boundary.
Note:		The sizing and specifications for the potable water system reflected in this exhibit are currently based solely on the potable water supply to residential, commercial and school customers. All irrigation/slope water shall be delivered from the proposed 30th St W/DWR Aqueduct turnout and Recycled/Reclaimed/Untreated Water facilities.

Intentionally Omitted

Exhibit C-3

Schedule of Completion of Water System Infrastructure (WSI)
and Irrigation Water System Infrastructure Prior to Issuance of Water Service

Item	Description
1.	Ritter shall construct and dedicate to the District Items 6 through 15 listed in Exhibit C-1 prior to the District providing any permanent water service to the Development
2.	Each potable water well can serve approximately 600 single family homes with a 3/4-inch water meter or the equivalent number of billing units. Prior to the District issuing the first meter within the Development, the Developer shall construct the first of 14 potable water wells, listed as item 1 in Exhibit C-1, including associated appurtenances listed as items numbered 2 through 5 in Exhibit C-1 (well discharge mains, chloramination station(s), forebay reservoir(s), pump station(s) and any other associated water facilities). Each additional well and associated appurtenances shall be constructed prior to the issuance of the first meter of the next batch of 600 single family homes or equivalent number of billing units.
3.	Item 16 of Exhibit C-1 shall be completed prior to the completion of Ritter Ranch Phase I and Ritter Ranch Road between Bridge Road and Westland Drive.

EXHIBIT D
"CONDITIONAL WILL-SERVE LETTER" FOR SUBDIVISIONS

☐ County of Los Angeles
Water Ordinance Unit
900 S. Fremont Ave., 4th Fl.
Alhambra, CA. 91803-1331

☐ City of Lancaster
44933 N. Fern Ave.
Lancaster CA. 93534

☐ City of Palmdale
38300 N. Sierra Hwy.
Palmdale, CA. 93550

LOS ANGELES COUNTY WATERWORKS DISTRICT NO. _____

STATEMENT OF WATER SERVICE FOR SUBDIVISION WATER SYSTEM

TRACT/PARCEL MAP NO. _____ NO. OF LOTS _____

INQUIRY NO. _____ SPECIFICATION NO. _____ AVG WATER USE _____ AC-FT/YR

- ☐ This is to state that the District's current water system, presently owned and operated by the District, can adequately provide water service to the development that meets the requirements of the County/City Engineer and the County/City Fire Chief adopted for the development* and the Rules and Regulations of the District. The developer has paid or will have paid the District's charges at such time as permanent water service is provided.
- ☐ This is to state that there is a water system proposed to be installed to serve this development that will, upon satisfactory completion of construction by the developer, at the developer's expense, meet the requirements of the County/City Engineer and the County/City Fire Chief adopted for the development* and the Rules and Regulations of the District.
- ☐ This is to state that, as stated on the development map, additional water system facilities may have to be installed to serve this development to meet the requirements of the County/City Engineer and the County/City Fire Chief, which at this time have not been specifically set. As a condition of receiving water service from the District, the developer will have to install such facilities at his expense and pay the District's applicable charges and fees. It is understood that the developer, by recording the map for this development, assumes responsibility for the installation of any thereby needed water system facilities and payment of the applicable charges and fees of the District.
- ☐ The developer has signed and filed a statement with the District agreeing to install the needed water system facilities at his expense. The developer has executed a statement agreeing to the District not providing permanent water service until the facilities are satisfactorily completed and all charges and fees of the District have been paid or are offset by applicable credits.

Upon satisfactory completion of construction, the developer must dedicate/transfer and necessary right of way to the Waterworks District for ownership before the District will provide permanent water service to the development.

Permanent water service will be conditioned upon the necessary and sufficient water supplies being available to serve the above property. This document expires one (1) calendar year from the date the District Engineer signs below.

Under the County/City Fire Code (Section 13.301) additional fire protection requirements may be set by the Fire Chief upon review of the plans submitted for building permit(s) that may result in additional water system facilities being required to be installed at the developer's expense.

cc: Developer: _____

For the District:

Signature Date

Signature Date

Los Angeles County Waterworks Districts
900 South Fremont Avenue
Alhambra, CA 91803-1331
(626) 300-3300

Developer's _____
Engineer: _____

ADDENDUM FOR THE 2006 AMENDED AND RESTATED WATER SYSTEM AGREEMENT BETWEEN LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 40, ANTELOPE VALLEY, AND PALMDALE HILLS PROPERTY, LLC, FOR WATER SERVICE TO RITTER RANCH.

A. PROJECT INFORMATION

- 1. Project Title:** 2006 Amended and Restated Water System Agreement Between Los Angeles County Waterworks District No. 40, Antelope Valley, and Palmdale Hills Property, LLC, for Water Service to Ritter Ranch.
- 2. Lead Agency:** Los Angeles County Waterworks District No. 40
900 S. Fremont Avenue
Alhambra, CA 91803-1331
- 3. Contact Persons:** Manuel del Real
Assistant Deputy Director
(626) 300-3300
- 4. Project Location:** Various Locations
Palmdale, CA 93550
- 5. Project Sponsor:** Palmdale Hills Property, LLC/SunCal Companies
Attn: Frank Fey
21900 Burbank Blvd., Suite 114
Woodland Hills, CA 91367

6. Introduction/Description of Project:

Ritter Ranch is a residential and commercial development within the City of Palmdale (“Development”). The Los Angeles County Waterworks District No. 40, Antelope Valley (“District”), anticipates serving water to the Development. In 1992, the City of Palmdale certified the Final Environmental Impact Report (“EIR”) for the Ritter Ranch Specific Plan (see Exhibit “E”). The 1992 EIR analysis included the impacts of the construction and the operation of the on-site water system facilities (sometimes referred to as “in-tract” facilities). A month later, the County of Los Angeles adopted a mitigated negative declaration (“MND”) for various onsite and offsite water system facilities (see Exhibit “F”). Details regarding the water system facilities are in a water system agreement executed by the Los Angeles County Waterworks

District No. 34 (Desert View Highlands) and Ritter Park Associates (“1992 Water System Agreement”). District No. 34 was consolidated into the District in 1993.

The District proposes to enter into an Amendment and Restated Water System Agreement Between Los Angeles County Waterworks District No. 40, Antelope Valley, and Palmdale Hills Property, LLC for Water Service to Ritter Ranch (“Project”) that amends the 1992 Water System Agreement (the content of both the Project and the 1992 Water System Agreement are herein included by reference). This addendum considers the environmental impacts of the Project pursuant to State CEQA Guidelines sections 15162 and 15164.

7. Prior Environmental Review Pursuant to the California Environmental Quality Act

a. 1992 Mitigated Negative Declaration

In 1992 the Board of Supervisors adopted the 1992 MND for certain water system facilities to serve water to the Development. Those facilities included the construction of three 2,000 gallon per minute (“gpm”) wells, a chlorination station, a 2.4 million gallon forebay, an Antelope Valley-East Kern Water Agency (“AVEK”) turnout and a number of pumping stations and transmission mains.

The 1992 MND reported that the transmission mains would be installed below ground and within public road rights of way or utility easements. All construction within road rights of way would comply with Department of Public Works Road Standards. The forebay and well sites would be enclosed by block walls and landscaped with trees and shrubs to mitigate any noise and visual or aesthetic effects. To further eliminate noise from electric motors, all booster pumps would be housed in concrete block structures. The 2.4 million gallon forebay would be partially buried to reduce its height. All facilities in the 1992 MND would benefit the District in that they would provide an emergency water supply to the Development when an interruption of State Project Water occurs and would also provide additional water supply capacity to the West Lancaster area during periods of peak consumption demand.

b. 1992 Final Environmental Impact Report

The 1992 EIR analyzed the environmental impacts of the water system facilities for the Development. The Development, as described by the 1992 EIR, consisted of the 10,625-acre Ritter Ranch Specific Plan and approximately 449 acres proposed for annexation by Palmdale. The 1992 EIR described the location of the Development as being in the southwest foothills of the Antelope Valley, bound by Ritter Ridge on the north, on the east by the extension of 35th Street West, on the south by the Sierra Pelona Ridge, and on the west by the Angeles National Forest and the community of Leona Valley.

The Development would contain 7,601 acres designated as open space area, with the remaining 3,024 acres planned for development in the northern, eastern, and central lower portions of the property. The Development planned for construction in four phases over an estimated 20-year period that included 7,200 residential units, 692,125 square feet of commercial space, 121.6 acres of community and neighborhood parks, an 18-hole golf course, seven schools,

and roadways. The Ritter Ranch Specific Plan provided project-wide land use, landscape, circulation and infrastructure plans as well as design regulations and guidelines.

8. Minor Changes To The Development and the 1992 Water System Agreement

The Project will amend the 1992 Water System Agreement. The Project has minor technical changes or additions and therefore an addendum is appropriate pursuant to State CEQA Guidelines sections 15162 and 15164. The primary changes to the 1992 Water System Agreement are as follows:

a. Off-site and On-site Water System Requirements

The Project will require an increase from three 2,000 gpm groundwater wells to fourteen 800 gpm groundwater wells. Smaller producing wells are proposed because they must be drilled shallower than those contemplated in 1992 due to high arsenic levels in the deeper aquifer. The well field would be sited at the same location as contemplated in the 1992 EIR and consequently, will have similar visual and aesthetic impacts.

A utility site consisting of an AVEK turnout and pump station will be moved from the intersection of Avenue O-8 and 25th Street West to near the intersection of Avenue O-14 and 25th Street West, which is approximately ½ mile away from the original site.

AVEK has chosen to convert its treatment process from the use of free chlorine to the use of chloramines. As a part of the well field construction, the Project requires the construction of a groundwater treatment facility. The groundwater treatment facility is to be located near 70th Street West and Avenue G-12 and shall be constructed using chloramine treatment processes.

b. “In-Tract” Water System Facilities

The reservoir storage factor per equivalent dwelling unit has been upsized from 1,250 gallons per day per equivalent dwelling unit (“gpd/edu”), used in 1992, to 1,650 gpd/edu. Consequently, this new storage factor has increased reservoir storage from approximately 14.2 million gallons (“MG”), according to the 1995 Water System Master Plan, to 20.9 MG.

The number of reservoirs will be increased from 8 to 14 within the Development. Constructing two reservoirs in each Service Zone is required so that the District can perform maintenance on one reservoir during the winter, while the other serves the zone. Further, the redundancy of having two tanks within the Service Zone is important to ensuring the reliability of the District’s water supply.

B. CEQA REQUIREMENTS FOR ADDENDUM USE

If changes to a project or its circumstances occur or new information becomes available after adoption of an EIR or negative declaration, the lead agency may: (1) prepare a subsequent EIR if State CEQA Guidelines section 15162(a) criteria are met, (2) prepare a subsequent negative declaration, (3) prepare an addendum, or (4) prepare no further documentation. (State CEQA Guidelines § 15162(b).) When only minor technical changes or additions to the EIR or negative declaration are necessary and none of the conditions described in Section 15162 calling

for the preparation of a subsequent EIR or negative declaration have occurred, CEQA allows the lead agency to prepare and adopt an addendum. (State CEQA Guidelines, § 15164(b).)

Under Section 15162, a subsequent EIR or negative declaration is required only when:

- (a) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (b) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of any new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (c) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
 - (i) The project will have one or more significant effects not discussed in the previous negative declaration;
 - (ii) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - (iii) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - (iv) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

C. ANALYSIS

1. No “Substantial Changes” Are Proposed Pursuant to State CEQA Guidelines Section 15162(a)(1)

To determine whether an addendum is the appropriate environmental review document, State CEQA Guidelines requires a three-part analysis. The first part is to determine whether the Project contains substantial changes which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a

substantial increase in the severity of previously identified significant effects. (State CEQA Guidelines, § 15162(a)(1).) The changes between the 1992 Water System Agreement and the Project are not substantial and do not require major revisions to the EIR or MND as explained below.

(a) *Water Supply*

The 1992 MND analyzed three 2,000 gpm groundwater wells while the updated water system provides for fourteen 800 gpm groundwater wells. The larger number of smaller producing wells are proposed because they must be drilled shallower than those contemplated in 1992 due to high arsenic levels in the deeper aquifer.. The change is not substantial for three reasons: (1) the wells will serve only as a backup source of water in the event of an interruption of State Water Project water; (2) the wells are smaller in capacity than previously analyzed wells; and (3) the wells will be sited at the same location as contemplated in the 1992 EIR and consequently, will have similar visual and aesthetic impacts.

The 1992 MND stated the following:

These facilities will benefit Los Angeles County Waterworks Districts Nos. [40] in that they will provide an emergency water supply to the proposed Ritter Ranch development when an interruption of State Project water occurs and will provide additional capacity to the west Lancaster area during periods of peak demand.

(1992 MND, p. 1.) As set forth in the 1992 MND and 1992 EIR, the principal source of water for the Development will continue to be supplied by AVEK from the State Water Project. As also analyzed in the earlier CEQA documents, the Project anticipates that the groundwater wells will provide an emergency water supply to the Development in the event of an interruption of State Water Project water. Additionally, the wells may provide additional water supply capacity to the west Lancaster area during periods of peak consumption demand. Further, because the size of the Development anticipated in 1992 is the same today, actual demand for water supply is expected to be the same. Consequently, there will be no substantial change to the level of water demand.

When the 1992 EIR was prepared, the Development property lay within the sphere of influence of Los Angeles County Waterworks District No. 4 and approximately one mile west of Los Angeles County Waterworks District No. 34. District 4 and 34, along with other regions, were consolidated into District 40 on November 2, 1993. District No. 40 obtained much of its water supply from AVEK. The District also obtained backup water supply from groundwater wells located in the Lancaster Subunit of the Antelope Valley groundwater basin.

Untreated water was available from both an AVEK turnout located east of the property and from groundwater wells located in the Anaverde and Leona Valleys. The water at the turnout was pumped directly from the California Aqueduct. The 1992 EIR reported that the raw water from the Aqueduct would be used for construction watering and landscape irrigation within the Ritter Ranch Specific Plan area.

The 1992 EIR indicated that the water supply proposed for the Development would originate from several sources. The potable water supply would be acquired from the District, with the District obtaining its water supply from AVEK. The Quartz Hill Water Treatment Plant would treat AVEK water, which would be conveyed through the South Feeder transmission mains, and would then be delivered through three separate turnouts. If the AVEK water supply was interrupted, the District would maintain continuity of supply by using groundwater pumped from the Lancaster Subunit of the Antelope Valley groundwater basin.

The 1992 EIR concluded that the Development would use a significant amount of water (over 7,000 acre-feet per year) requiring significant onsite and offsite water facilities. The MND calculated that the Development would use approximately 8,000 to 10,000 acre-feet per year. This estimate of water demand by the Development has not changed. The 1992 EIR has already considered the water system facilities needed to provide an adequate water supply to the Development. For example, the topography and elevation of the Development required additional Service Zones be constructed, in addition to the existing Service Zone. The design planned to locate storage tanks in the higher elevations adjacent to residential areas. The 1992 EIR anticipated that appropriate grading and landscaping would reduce impacts to less than significant levels, with respect to aesthetics and land use compatibility.

The principal source of water supply for the Development would be delivered from AVEK through both the existing South Feeder and the proposed South Feeder Relief. This water would be delivered to the District at a future utility site located at Avenue O-8 (now moved to O-14) and 25th Street West. This water would be conveyed to the Development through a network of existing and proposed facilities.

It was anticipated that if the AVEK supply was interrupted, water would be provided to the Development from new groundwater wells pumping approximately 6,000 gpm from the Lancaster Subunit. The wells would be located west of 60th Street West along Avenue H.

Water would be treated and pumped through existing and proposed District facilities to the AVEK water system. Water would then be pumped into AVEK and conveyed to the utility site and then to the Development.

The Ritter Ranch Specific Plan contained provisions to construct a package water treatment plant on the project site at a later date. The 1992 EIR reported that should a water treatment facility be constructed in the future, reclaimed water could be produced to supplement the supply of raw water for landscape irrigation. A study entitled “Ritter Ranch Sewerage Study”, prepared by Brockmeier Engineering, determined that an onsite wastewater treatment facility was feasible after 30 percent build-out of the Development. The construction of this facility in the future would require a conditional use permit and subsequent environmental review.

Accordingly, an analysis of the change from three to fourteen wells demonstrates that the change in impact is not considered substantial because the wells will serve only as a backup source of water in the event of an interruption of State Water Project water; the newer wells are smaller than the previously analyzed wells; and the well field would be sited at the same location

as contemplated in the 1992 EIR and consequently, will have similar visual and aesthetic impacts.

(b) *Reservoirs*

In the 1992 EIR, all reservoirs (typically cylindrical concrete or steel structures approximately 24 to 32 feet in height) were sized using 1,250 gpd/edu and all demand and pump station calculations were sized using 1,670 gpd/edu. The reservoir storage factor per equivalent dwelling unit has been upsized from 1,250 gpd/edu, used in the 1992 EIR, to 1,650 gpd/edu. Consequently, this new storage factor has increased reservoir storage from approximately 14.2 MG to 20.9 MG. The 1992 EIR stated there would be 13.0 MG of total storage.

The water generation/demand and pump station requirements (both number and sizing) were originally based on a demand factor of 1,670 gpd/edu (1.159722 gpm/edu). The overall capacity does not have to be increased from the original size proposed in 1992. In the 1992 EIR, only one reservoir was planned for each zone. A District requirement states that there must be a minimum of two reservoirs in each zone of service. The original reservoir count in the 1992 EIR was stated to be 8 total reservoirs. The new reservoir count shall be 14 total reservoirs within the Development. Constructing two reservoirs in each Service Zone is required so that the District can perform maintenance on one reservoir during the winter, while the other serves the zone. Further, the redundancy of having two tanks within the Service Zone is important to ensuring the reliability of the District's water supply. These reservoirs are still slated to be built and grouped at the same location as stated in the 1992 EIR. Consequently, the impact to the environment from these additions to the Project is not expected to be significant.

(c) *Other Revisions To Facilities*

The 1992 EIR states that the facilities will include a utility site at the intersection of Avenue O-8 and 25th Street West. The utility site will consist of an AVEK turnout and pump station. The utility site has been relocated and is proposed to be near the intersection of Avenue O-14 and 25th Street West, which is approximately ½ mile away from the original site. No change in impact is anticipated.

AVEK has chosen to convert their treatment process from the use of free chlorine to the use of chloramines. As a part of the well field construction, the developer will construct a groundwater treatment facility. The proposed groundwater treatment facility is to be located near 70th Street West and Avenue G-12 and shall be constructed using chloramine treatment processes. This conversion does not change the overall footprint of the proposed structure. The rest of the changes are considered to be minimal, causing little to no change in impact to the environment.

(d) *Mains, Pumping Stations, Reducing Stations and Pressure Zones*

The 1992 EIR anticipated water mains, pumping stations, reducing stations and pressure zones for the Development. The Project adds further clarification to the exact extent of the facilities required to service the Development. However, the size of the Development has not changed. Accordingly, no change to impacts is anticipated.

2. No “New Circumstances” Are Present Pursuant To State CEQA Guidelines Section 15162(a)(2)

The second part of the analysis is to determine whether substantial changes have occurred with respect to the circumstances under which the Project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. (State CEQA Guidelines, § 15162(a)(2).) An analysis of the changes indicates that there are no new circumstances that will require major revisions to the EIR or the MND.

The Antelope Valley Groundwater Basin does not have adjudicated groundwater rights. Accordingly, there is no evidence that a substantial change with respect to the circumstances under which the Project is being undertaken will require major revisions of the 1992 EIR or 1992 MND.

3. No “New Information” Is Present Pursuant To State CEQA Guidelines Section 15162(a)(3)

The third part of the analysis is to determine whether new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the EIR or negative declaration was adopted, would require certain major revisions to the previous CEQA document. (State CEQA Guidelines, § 15162(a)(3).) An analysis of the changes indicates that there is no new information that will require major revisions to the EIR or the MND.

Although the Project includes minor additional facilities, the scope of the Development has not changed. Thus, the Project merely clarifies information that was previously contemplated in the 1992 EIR and 1992 MND. Accordingly, the impact to the environment will be less than significant. Therefore, the Project does not include any significant new information that would require the preparation of a supplemental EIR or mitigated negative declaration.

D. CONCLUSION

The 2006 Amended and Restated Water System Agreement Between Los Angeles County Waterworks District No. 40, Antelope Valley, and Palmdale Hills Property, LLC, for Water Service to Ritter Ranch will not result in any substantial changes to the 1992 Water System Agreement that would implicate new significant environmental effects or a substantial increase in the severity of previously identified significant effects. There has not been any substantial change in circumstances or discovery of any substantial new information regarding the Project’s environmental effects or mitigation measures. Accordingly, the Board of Supervisors finds, based upon substantial evidence, that this addendum is appropriate under State CEQA Guidelines sections 15162 and 15164.

EXHIBIT E

F I N A L

ENVIRONMENTAL IMPACT REPORT

MARCH 1992

Ritter Ranch Specific Plan
AND ASSOCIATED ANNEXATION AREAS

SCH # 90010124

Prepared for:

The City of Palmdale

Prepared by:



Robert Bain, William Frost & Associates

JN 26193-3342

MEMORANDUM TO REVIEWERS OF THE FINAL ENVIRONMENTAL IMPACT REPORT

The City of Palmdale has prepared the Final Environmental Impact Report for the development of the Ritter Ranch Specific Plan (and Associated Annexation Areas) in accordance with the California Environmental Quality Act, including sections 15088-15090 and Section 15162. The City of Palmdale has prepared responses to comments received on the Draft EIR, which was available for public review between August 30, 1991 and October 14, 1991. Additions to the text are denoted by ~~shaded text~~ while deletions are indicated by ~~strike-out text~~, to provide the reader with a vehicle for recognizing substantive changes to the text. Section 15132 of the CEQA Guidelines requires that a Final EIR consist of:

1. The Draft EIR or a revision of the Draft.
2. Comments and recommendations received on the Draft EIR either verbatim or in summary.
3. A list of persons, organizations and public agencies commenting on the Draft EIR.
4. The responses of the Lead Agency to significant environmental issues raised in the review and consultation process.
5. Any additional information added by the Lead Agency.

The Final Environmental Impact Report (FEIR), including the revised Draft EIR and Comments and Responses, together with other relevant information, shall be considered by the City Council in evaluating the proposed project. The City and other responsible agencies must consider the Final EIR when issuing permits or approvals for the project, or other project-related discretionary actions.

The Comments and Responses section (Section XII) contains a list and copy of each comment letter formally received by the City on the Draft EIR during the 45-day public review period, responses to these comments, and minor clarifications, where necessary. Responses follow each comment letter. Where several significant comments were within one comment letter, the margin of the comments were keyed to match the responses. Added or modified text is ~~shaded~~ while deleted text is ~~struck-out~~. Additional revisions have been made to some of the responses in Section XII, COMMENTS AND RESPONSES (again denoted by ~~shaded~~ and ~~strike-out text~~) including changes to Response Nos 6, 13, and 30, as a result of information contained in Resolution No. 92-22 for the Ritter Ranch Specific Project.

Screencheck EIR Accepted: August 8, 1991
Second Screencheck EIR Accepted: October 22, 1991
Preliminary Draft EIR Accepted: February 7, 1991
Final EIR Certified: February 27, 1992

FINAL
ENVIRONMENTAL IMPACT REPORT
RITTER RANCH SPECIFIC PLAN
(AND ASSOCIATED ANNEXATION AREAS)

- Annexation/Sphere of Influence Amendment
- General Plan Amendment
- Specific Plan
- Pre-Zone

SCH #90010124

CITY OF PALMDALE
38306 9th Street East
Palmdale, CA 93550
Contact: **Ms. Laurie Lile**
(805) 272-9613

Consultant:

ROBERT BEIN, WILLIAM FROST & ASSOCIATES
14725 Alton Parkway
Irvine, CA 92718
Contact: **Mr. Kevin Thomas**
Ms. Rica Weber
(714) 855-3659

April, 1992

JN 26193

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for
RITTER RANCH SPECIFIC PLAN
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I. EXECUTIVE SUMMARY

I. EXECUTIVE SUMMARY

A. PROJECT SUMMARY

The "project" as addressed within this Environmental Impact Report (EIR), consists of the proposed 10,625-acre Ritter Ranch Specific Plan (prepared by Azeka De Almeida Planning for Ritter Park Associates) and approximately 449 acres on several adjacent parcels also proposed by the City of Palmdale for annexation. These "Other Annexation Areas" are evaluated throughout the EIR ("project" will hereafter refer to both components). The "Other Annexation Areas" include the Lazy T Ranch, Messer Ranch, Nelson, Hughes and Ritter Family properties and two microwave stations covering 140 acres. It should be noted that no development plans have been proposed for these Other Annexation Areas.

The proposed Ritter Ranch Specific Plan project is located in the southwest foothills of the Antelope Valley, bound by Ritter Ridge on the north, on the east by the extension of 35th Street West, on the south by the Sierra Pelona Ridge, and on the west by the Angeles National Forest and the community of Leona Valley. Messer Ranch and the Nelson property are located in the north-central portion of Ritter Ranch, south of Elizabeth Lake Road. Lazy T Ranch, Hughes property and Ritter Family property are located adjacent to the northeast portion of Ritter Ranch, south of Elizabeth Lake Road. The Ritter Ranch project and these other properties are proposed to be annexed into the City of Palmdale. Two microwave station easements within the southern Ritter Ranch open space area would also be annexed into the City (140 acres). The proposed land use designation for the five properties is non-urban, allowing a maximum of 1 dwelling unit per acre (du/ac). The proposed land use designation on the microwave sites will be "Resource Conservation".

Ritter Ranch. The Ritter Ranch site is approximately 10,625-acres, with approximately 7,601 acres designated as open space area¹, with the remaining 3,024 acres planned for development in the northern, eastern, and central lower portions of the property. The Ritter Ranch Specific Plan, planned for construction in four phases over an estimated 20-year period, includes the following land uses (acreages are estimated):

¹ Includes 353 acres of "Specialty Parks" (including 48-acre Equestrian Center), Trail System and Fuel Modification Zones.

Residential Units (7,200)	2,377 acres
<ul style="list-style-type: none"> ● 80 single-family estate (221.7 acres) ● 6,278 single-family attached/detached (2,107.5 acres) ● 348 multi-family residential (25.5 acres) ● 494 multi-family senior (22.3 acres) 	
Neighborhood Commercial (692,125 s.f. Gross Leasable Area)	73.1 acres
Open Space/Recreation	7,906.3 acres
<ul style="list-style-type: none"> ● Community and Neighborhood Parks (121.6 acres) ● Golf Course (18-hole, 184 acres) ● Open Space (7,600.7 acres)* 	
School Sites (5 elementary, 1 middle, 1 high school)	120.6 acres
Major Roadways	<u>148 acres</u>
	<u>10,625 acres</u>

The Ritter Ranch project, as defined in the EIR, entails all the actions associated with the implementation and development of the Ritter Ranch Specific Plan. The Specific Plan serves as a means of managing the use of land, establishes provisions for site development, and provides a comprehensive approach to infrastructure planning and financing. The Specific Plan provides project-wide land use, landscape, circulation and infrastructure plans as well as design regulations and guidelines.

Other Annexation Areas. In order to meet Local Agency Formation Commission (LAFCO) requirements and to avoid unincorporated "islands" after Ritter Ranch incorporation, the City of Palmdale is also proposing to annex seven properties into the City. These include five small private landholdings (309 acres) and two microwave station sites (140 acres). The five properties include the Messer Ranch (208 acres), Nelson property (22 acres), Hughes property (34 acres), Lazy T Ranch (12 acres) and the Ritter Family property (33 acres). The two microwave station sites and associated transmission towers are located on Mt. McDill and Mt. Hauser. These parcels total approximately 449 acres and are not planned for development at the present time. The existing County General Plan land use designation on these properties is Open Space. The proposed annexation of the properties to the City will require a Sphere of Influence Amendment and a General Plan Amendment

to add the properties to the City General Plan land use. The existing zoning for these areas is A-2-2 (rural 2-acre minimum size lots). Proposed General Plan land use designations and zoning for the annexation areas are as follows:

	<u>Proposed Land Use</u>	<u>Proposed Zoning</u>	<u>Maximum Permitted Dwelling Units</u>
Messer Ranch	Non-Urban Conditional*	A-1-1	208
Nelson Property	Non-Urban*	A-1-1	22
Hughes Property	Non-Urban*	A-1-1	34
Lazy T Ranch	Non-Urban*	A-1-1	12
Ritter Family Property	Non-Urban*	A-1-1	33
Microwave Station Sites	Resources Conservation	Open Space	0

*Maximum 1 du/gross acre 309

A Pre-Zone will be required to add this new zoning to the City of Palmdale Zoning Ordinance. The EIR has assumed ultimate development of 309 residential units based on an assumed maximum buildout of one unit per acre (no development is permitted or assumed on the microwave station sites). Considering the substantial topographic and seismic constraints, this is a conservative (worst-case) assumption.

The Ritter Ranch project represents a significant increase in residential and neighborhood commercial land uses from densities presently shown in City and regional plans. As discussed in Section V.C, GROWTH INDUCING IMPACTS, the project represents a "disproportionately large portion" of the City's forecast growth increment, which conflicts with local and regional plans. It should be noted that the Ritter Ranch project is estimated to provide 540 more jobs than needed to offset the proposed residential units (see Section IV.B, AIR RESOURCES).

Community Facilities District

The applicant will be required to participate in a Community Facilities District or an assessment district to finance construction and possible future maintenance of streets, drainage facilities parks, parkways, trails and other public facilities.

B. ENVIRONMENTAL SUMMARY

The following section provides a summary of impacts and mitigation measures and a listing of unavoidable significant impacts. Please for additional detail (some mitigation measures have been summarized). Note: * indicates Mitigation Measures which apply to the
Anticipation Areas.

IMPACTS

A. EARTH RESOURCES

Topography

Significant grading will occur within Ritter Ranch including portions of natural drainage courses, over most of the gently sloped areas, and portions of the lower foothills in Planning Areas (PA) 2, 4, 5 & 6 (total grading is estimated at 50 million cubic yards). Maximum height of cut slopes and depth of fill is estimated to exceed 70 feet in some areas, with maximum slope bank heights locally exceeding 100 feet to 135 feet, with further exceptions permitted).

Geology

- * Geologic constraints will require remediation as part of site development, including landslides, erosion, potential unstable slopes and undesirable surface material.

Groundwater

Increased groundwater recharge in the Ritter Ranch project area will likely result from irrigation of lawns, gardens, landscaped areas and the golf course (and in consideration of water recharge from detention and debris basins, as well as potential onsite use of reclaimed water from the onsite location reserved for a wastewater treatment plant).

Seismicity

Due to project's proximity to San Andreas Fault, a major earthquake could produce extreme ground shaking, lurching, and ground rupture.

MITIGATION MEASURES

General Measures

*# 1. Prior to approval of any Development Application, the Applicant shall provide a detailed geotechnical investigation, including recommended design, construction, and maintenance of mitigation measures to reduce potential geologic constraints, to the satisfaction of the City Engineer (see Section IV.A for additional mitigation measure text).

*# 2. All grading and landform modifications shall be conducted in conformance with state-of-the-practice design and construction parameters as set forth in Chapter 70 of the Uniform Building Code. All graded slopes should be constructed to be grossly and surficially stable, to the satisfaction of the City Engineer.

*# 3. Reshaping of the natural terrain to permit access and construction shall be kept to a minimum. Where possible, improvements should be designed to conform to the terrain to the satisfaction of the City Engineer.

*# 4. Where grading is necessary on minor inclined or steep terrains; grading shall provide gradually adjusted slope angles, avoidance of angular forms and concealed exposed slopes to the extent feasible.

*# 5. Remedial grading within the sites to mitigate the effect of collapsible surficial soils shall be performed prior to site development.

IMPACTS

Offsite Infrastructure Improvements

The project (and other existing and proposed development) will require substantial offsite improvements as part of the Amargosa Creek Improvement Project. This will require substantial fills within the creek vicinity, as well as excavations for detention basins. These potential impacts will be addressed in the Amargosa Creek Improvement Project EIR (in process).

MITIGATION MEASURES

6. Positive surface-water drainage control measures shall be undertaken by the project Applicant to reduce the creation of new springs or seeps to the satisfaction of the City Engineer, particularly in any high groundwater areas proposed for development.

7. Fill slopes should be constructed at a maximum slope of 2:1, unless otherwise approved by the City Engineer.

8. To prevent erosion and subsequent downstream siltation, the Applicant shall comply with the conditions of an Erosion and Sedimentation Control Plan to be submitted for review and approval by the Antelope Valley Resource Conservation District and ~~review and approval~~ by the City of Palmdale (see Section IV.A for additional mitigation measure text).

9. Each deed or other conveyance of Real Property shall include the following statement: "Ritter Ranch is traversed by major splays (branches) of the San Andreas Fault Zone, a very youthful geologic feature. Due to the proximity of the Ritter Ranch site to the San Andreas Fault, there is a high risk of experiencing strong ground shaking and possible surface fault rupture." Additionally, where applicable, each disclosure statement within the deed shall contain language which denotes the possibility of building restrictions on residential additions for human occupancy on those parcels which are located in Fault Hazard Restricted Use Zones.

Ritter Ranch

10. In addition to the mitigation measures listed below, compliance with the mitigation measures from the following sections of the Buena Engineers, Inc. Geotechnical Report is required to the satisfaction of the City Engineer (see Section IV.A for additional mitigation measure text).

#11. The site shall be designed to accommodate City of Palmdale Engineering Design Standards and the Master Plan Drainage, except as otherwise approved by the City Engineer, for controlling flooding and debris flows within and adjacent to Anaverde Creek, Amargosa Creek, and other existing natural drainage courses.

#12. Areas noted on Exhibit 10A with an "SF" (Special Foundation Areas) or as identified in subsequent geotechnical studies are recommended for more heavily reinforced foundations and such requirements shall be indicated on each deed for Real Property within the Special Foundation Areas relative to existing and potential additional foundations on the property.

#13. Due to possible adverse geologic conditions in the bedrock areas, detailed site specific analyses relative to slope stability shall be performed for all proposed cut slopes prior to issuance of grading permit. Grading permit issuance will be subject to the grading plan demonstrating compliance with applicable recommended slope stability measures.

#14. Cut slopes within alluvial areas will be constructed at a maximum slope of 2½:1 (unless otherwise approved by the City Engineer/Geologist).

#15. Road fills proposed for any planned high cut slopes, and buttress fill shall be required to stabilize the cut and adjacent hillsides.

#16. Prior to Development Application approval, the Applicant shall demonstrate to the satisfaction of the City Director of Planning and Engineer that all feasible mitigation measures have been implemented to minimize grading impacts. The applicant may be required to submit complete geotechnical studies and/or reports to the satisfaction of the City Engineer. Consideration shall be given to use of "stepped" play fields for the school and park sites, particularly where a relatively level surface across the entire facility would require significant grading.

IMPACTS

MITIGATION MEASURES

#17. The project geotechnical consultant shall be responsible to perform confirmatory tests and observations during grading to assure that the geotechnical recommendations are being followed and shall certify that all grading complies with the provisions of all approved plans and specifications, pursuant to the Los Angeles County Uniform Building Code, Chapter 20.

#18. Comprehensive geotechnical investigations including exploratory drilling, sampling and laboratory testing shall be performed prior to issuance of grading permit. Grading permit issuance will be subject to grading plan compliance with applicable recommendations.

#19. Subsurface exploration shall be performed prior to issuance of grading permit. Grading permit issuance will be subject to grading plan compliance with applicable recommendations.

#20. In order to evaluate the potential for ground-surface rupture along the trace of an active fault within the San Andreas fault zone, and provide setback recommendations for proposed structures, exploratory fault trenching shall be performed prior to issuance of grading permit.

#21. Upon issuance of building permits, the project shall implement an emergency spill response plan. The following measures for emergency spill response shall be implemented by the City and County of Los Angeles:

- 1. Measures to detect early warning of a spill (e.g., leak)
- 2. The installation of manual or automatic isolation valves
- 3. Provisions for spilled sewage retention;

Note: The following Mitigation Measures which apply to both the Ritter Ranch Specific Plan and Annexation Areas.

- Spill response measures;
- Clean-up and disinfection measures; and
- Training and funding for implementation and of the spill plan.

B. AIR RESOURCES

Construction Impacts

Clearing, grading, utility excavation and travel on unpaved surfaces will create considerable quantities of fugitive dust during the construction cycle (estimated at 634 tons per year over the 20-year Ritter Ranch buildout). Construction vehicle emissions are estimated at 475 tons per year of Nitrogen Oxides. The Other Annexation Areas would generate insignificant emissions.

Mobile Source Impacts

The project will generate approximately 535,080 vehicle miles traveled (VMT) each day, based on 89,180 average daily trips. Ritter Ranch development will cause a significant increase in regional transportation-related emissions. Such a contribution should be viewed as inconsistent with the Air Quality Management Plan. If the project represents affordable single family housing with long commutes to job centers, then the project's air quality impact is significant. It should be noted that Ritter Ranch is estimated to provide 540 more jobs than are required to offset the residential units.

Other Annexation Areas

These other properties are estimated to generate 3,100 Average Daily Trips at worst-case, which would not represent a significant incremental addition to the regional air pollution burden. Cumulatively, however, combined with the Ritter Ranch project, these emissions would represent a significant impact.

*#21. To mitigate potential dust generation impacts, the project will comply with State, County and City dust control regulations. These regulations are intended to provide sufficient protection so as to prevent the soil from being eroded by wind, creating dust, or blowing onto a public road or roads or other public or private property.

*#22. In addition to watering prior to and during grading (as discussed in SCAQMD Rule 403), the application of water and chemical dust retardants that solidify loose soils interim-paving shall be implemented for construction vehicle access, as directed by the City Engineer, by applying to the soil surface that solidify loose soil, when directed by the City Engineer.

*#23. Grading activity shall be suspended when local winds exceed 30 miles per hour. To validate wind velocities and/or rainfall amounts, the installation of a minimum of two remote weather stations will be required at locations determined by the City Engineer.

*#24. Heavy construction equipment shall use low sulfur fuel (0.05% by weight) and shall be properly tuned and maintained to reduce emissions.

*#25. Construction activities shall be phased and scheduled to avoid high ozone days, to the extent feasible.

*#26. Construction will be discontinued during second stage smog alerts.

*#27. The Applicant shall, as required by the Planning Department and the City of Palmdale's proposed Air Quality Element, implement applicable Tier I Control Measures

IMPACTS

Miscellaneous Impacts

Project-related energy demand that is met by burning fossil fuels and a variety of small growth-related sources will contribute cumulatively significant additional air pollutant emissions to the air basin.

Offsite Infrastructure Improvements

Regional infrastructure improvements provided with the Amargosa Creek Improvement Project will require significant construction vehicle activity and grading. The dust and construction vehicle emission impacts can be mitigated to less than significant levels. The analyses in this EIR assume full offsite road improvements and future traffic levels, allowing for the proposed regional improvements.

The roadway improvements will accommodate increased traffic volumes expected to be generated by the proposed Ritter Ranch project and other surrounding proposed development. As a result of this increased traffic, local pollution load will increase. A broader discussion of the Amargosa Creek is provided in that project's EIR. However, the impacts associated with these offsite improvements will contribute to cumulatively significant impacts to air quality anticipated in the area.

Park and Ride

At a minimum, the project developer should provide one park-and-ride space for every 10 dwelling units constructed. The developers of the southwest area should construct a part-and-ride facility on the west side of the 14 Freeway within a half-mile of the Avenue S interchange. The facility should provide approximately 400 spaces and should be constructed prior to occupancy of units within any of the developments. The developers would be responsible for the complete development of the park-and-ride facility including acquisition, design, agency reviews and approvals, utilities, and construction. Upon acceptance of the completed facility,

MITIGATION MEASURES

contained in the Final 1991 1989 AQMP, as may be subsequently amended. Additionally, the ~~Best Available Control Technology Guidelines~~ published by SCAQMD shall be used. As project buildout will occur over a 20-year period, subsequent phases/approvals will be held to Tier II and Tier III measures which are implemented as mandatory AQMD Rules and Regulations applicable to the project ~~phase as they are implemented (such as through AQMD Rules and Regulations)~~ (see Section IV.B for additional mitigation measure text, which includes requirement of construction and funding of a Park 'n Ride facility at Avenue S/SR-14).

#28: Prior to subsequent approvals, energy conservation practices, as required by the Subdivision Map Act, Building Energy Efficiency Standards (California Energy Commission), and state and local laws, shall be incorporated into the design of the project to have the secondary effect of limiting stationary source pollutants both on and offsite.

~~#29: All phases of the project shall comply with applicable rules and regulations of the SCAQMD.~~

#30: Projects that exceed SCAQMD threshold levels shall contribute to traffic mitigation programs imposed on the development in effect at such time building permits are issued for the project, and each part thereof.

it would be deeded over to the City. The park-and-ride facility would serve to mitigate cumulative impacts of a total of 4,000 units.

These could include transit alternatives or traffic engineering projects appropriate as commuter requirements change over time. The fee should be set at \$250 per dwelling unit (subject to an annual increase based on Los Angeles Area (CPI) based on the estimated cost of construction of parking lots which is presently \$2,500 per space).

C. WATER RESOURCES

Drainage

Development of the Ritter Ranch Specific Plan area has the potential to substantially increase off-site flood hazards and site run-off. Significant modification of onsite drainages will be required. Project development will be required to maintain or reduce existing downstream flows. The proposed onsite Flood Control basins, debris basins and channel improvements, in combination with regional Amargosa Creek Improvements will substantially reduce downstream flows below existing levels within that drainage basin.

Alluvial fans pose potential flood hazards due to the unpredictable storm flow paths, the instability of the ground surface, and the large quantity of eroded sediments which are carried within the runoff. To reduce these impacts, structural improvements will be required.

Potential future development of the other properties would result in increased storm runoff, impacting Amargosa Creek to the north.

Water Quality

Implementation of the proposed project will result in an increase in the quantities of urban pollutants that enter the local drainages. Also, improper maintenance of landscaping

#31. All drainage facilities shall be designed and constructed in accordance with the City of Palmdale Drainage Master Plan and the Los Angeles County Hydrology Manual to the satisfaction of the City Engineer. Local facilities will be installed concurrently with or immediately after completion of grading activities, and in some cases as required by the City Engineer. Interim facilities may be provided. Each facility shall be completed prior to issuance of occupancy permits for a development application for the portion of the project which is served by the facility. Regional facilities shall be constructed pursuant to the City Engineer's requirement and shall be completed prior to issuance of occupancy permits for a development application.

#32. All regional and major on-site facilities will be designed to accommodate a 50-year Los Angeles County Capital Flood with bulking and freeboard included as required by the City Engineer.

#33. All local drainage facilities shall be designed to accommodate a 25 year or a 10 year storm in accordance with the City Engineering Design Standards (see Section IV.C for additional mitigation measure text).

IMPACTS

can introduce fertilizers and pesticides into local water drainages. Development of the golf course in Ritter Ranch Planning Area 1 will require the use of fertilizers and pesticides which may significantly impact local water drainages. These impacts can be reduced to less than significant levels through transportation management and proper landscaping design and maintenance methods.

The Ritter Ranch project proposes various commercial uses and an equestrian center, and may include a Water Reclamation Plant (in PA 4H). Each of these uses pose water quality concerns, which, if not properly controlled, could result in significant surface water quality impacts. With implementation of the mitigation measures and requirements from applicable regulatory agencies, no significant water quality impacts are anticipated with the project.

Other Annotation Areas

- II Specific water quality impacts cannot be analyzed at this time as development plans are unavailable. However, urban pollutants would be anticipated to enter the local drainages. Grading during construction may result in short-term increases in sediment load of the runoff without mitigation, these impacts may be considered significant. However, water quality impacts are anticipated to be reduced to less than significant levels through implementation of the required Water Quality Control Plan.

Offsite Infrastructure Improvements

The Amargosa Creek regional improvements will require drainage modifications which will provide critical flood protection for the Leona Valley and downstream Amargosa Creek Floodplain.

MITIGATION MEASURES

#34. The lowest finish floor elevation of all habitable structures shall be a minimum of one-foot above the maximum water level resulting from the applicable capital flood.

#35. Flood Control basin design shall incorporate adequate peak attenuation and storage features and safety provisions (fencing, signage), to the satisfaction of the City Engineer.

#36. The Applicant shall submit a water quality control plan for review and approval by the City Engineer and the Director of Planning, prior to issuance of grading permits. ~~The plan shall be prepared in accordance with the National Water Quality Control Institute (NWQCI) standards and guidelines.~~ The plan shall indicate specific means of reducing urban pollutants and sedimentation and shall comply with the provisions of any National Pollution Discharge Elimination System permit requirements that may be required by other regulatory agencies (see Section IV.C for additional mitigation measure text).

D. BIOLOGICAL RESOURCES

Development of the Ritter Ranch Specific Plan is estimated to result in the direct loss of approximately 3,024 acres of habitat, which is a significant impact. Of the 7,601 acres of Open Space provided by the Specific Plan design, additional significant vegetation loss will occur within the Specialty Parks and due to providing required Fuel Modification Zones.

The proposed project will result in a significant loss of wetland habitat (approximately 50 acres) to the northwestern portion of the site as a result of development of the golf course and regional Amargosa Creek Improvement detention basin "B" (the majority of these wetlands would be impacted by grading necessary for the Amargosa Improvement Project). Project development will result in disrupting portions of the various onsite drainages and associated habitat, including Amargosa Creek, Anaverde Creek, Pine Creek, Rogers Creek and Ritter Canyon Creek.

Loss of grazing/grassland area is not considered significant on an individual project basis. However, due to the presence of sensitive raptor species, this loss is considered a significant cumulative impact. Development of the commercial uses south of Elizabeth Lake Road will result in the loss of Joshua Tree Woodland habitat. This impact can be reduced, however, through adherence to the City of Palmdale's provision for the protection of such habitat.

Construction of the road system on the north base of the Sierra Pelona will result in the disruption of wildlife access corridors, which is considered a significant adverse impact. This impact can be reduced through the construction of bridges or oversized culverts and open space setbacks to facilitate wildlife movement across the canyons of Rogers Creek, Pine Creek and Ritter Canyon. Impacts to wildlife onsite may also occur due to increased pedestrian, mountain hike and equestrian traffic associated with the Ritter Ranch trail system. Impacts to biological resources can be reduced

#37. Prior to Development Application approval, setbacks or other alternatives identified in a site specific biological study, will be provided to reduce impacts to raptor nesting sites and other biological resources. However, actual setbacks for each resource may vary less or more than the recommended distance as determined by a site-specific biological report reviewed and approved by the Director of Planning (see Section IV.D for additional mitigation measure text).

#38. At the time of construction of improvements, bridges or oversized culverts, as determined by a qualified biologist and reviewed and approved by the Director of Planning, shall be constructed within the canyons of Rogers Creek, Pine Creek, and Ritter Canyon where development areas or access roads would isolate wildlife. This would allow wildlife movement across the site and into other portions of the region.

#39. Fuelbreaks shall be from 20 to 100 feet in width and shall be manually cleared to avoid exacerbation of erosion. The fuelbreak system must conform to fire code standards (see Section IV.D for additional mitigation measure text).

#40. Prior to Development Application approval, portions of the site shall be designated for restoration, enhancement or expansion of wetland habitat. Portions to be designated will be subject to Director of Planning approval but, at a minimum, the proposal shall equate to a 1:1 replacement of impacted wetlands. A Wetlands Restoration Plan, indicating specific guidelines and designation of areas suitable for mitigation, and an explanation of methods which will assure permanent preservation shall be submitted for review and approval by the City of Palmdale, California Department of Fish and Game and U.S. Army Corps of Engineers (see Section IV.D for additional mitigation measure text).

IMPACTS

to some degree by requiring buffer areas between development and areas to remain natural.

Other Association Areas

Future development could result in impacts to the habitat and species present on other properties, particularly the Joshua/Juniper Woodland and Amargosa Creek riparian habitat.

Offsite

Water quality and runoff volumes generated by the proposed project could potentially impact downstream riparian habitat. However, with proposed hydrological improvements these impacts should be reduced to less than significant levels. The project use of year-round irrigation will result in positive impacts, as the regular flows are expected to sustain greater wetland growth downstream. In addition, low flow levels shall be maintained in any diverted stream channels to minimize impacts to established wetland areas. Disturbances of wildlife may also occur due to traffic noise, construction noise, light and glare, and the introduction of cats, dogs and children associated with the proposed site development. These impacts can be reduced through adherence to City regulations and implementation of the proposed mitigation measures.

Offsite Infrastructure Improvements

The regional Amargosa Creek Improvement Project will require significant creek channelization and roadway fills over existing vegetation. Mitigation plans are in process, examining opportunities to provide or enhance wetland areas, such as within proposed flood control basins.

MITIGATION MEASURES

#41. As directed by the City, the applicant shall conduct periodic removal of Tamarisk infestations and eradicate any infestations of ~~Amargosa Creek~~ (see Section IV.D for additional mitigation measure text).

#42. Plants such as Pampasgrass, African Fountaingrass, Tamarisk, Castorbean, ~~Amargosa Creek~~ and exotic Pescues shall not be planted within the Specific Plan area (see Section IV.D for additional mitigation measure text).

#43. Trails within the natural open space areas shall prohibit the recreational use of four-wheel and three-wheel vehicles, motorized dirt bikes and motor cross bicycles. ~~Trails shall be installed and maintained to ensure that recreational vehicle use is prohibited.~~

#44. The Applicant shall post signs along trail systems which designate trail boundaries for recreational uses, in order to minimize incidental disruption to open space, vegetation and wildlife.

#45. Slopes at the edge of the development shall be revegetated with low combustible plant material as approved by the City Engineer.

#46. The Specific Plan shall include a condition to either exclude the maintenance of horses on private property, due to too small lot size or to maintain such animals in corrals of specific size, as determined appropriate by the City. In large lots with adjacent natural areas, it is important to limit grouping of horses or other livestock to prevent destruction of native plants.

#47. The Applicant shall apply for and receive a 404 Permit from the Army Corps of Engineers and a 1603 Agreement from the California Department of Fish and Game prior to Grading Plan approval in areas which include wetlands due to the project's impact on lands under the jurisdiction of these agencies.

*#48. Prior to Development Application approvals, focused surveys shall be conducted by a City approved biologist to establish the presence or absence of sensitive species (see Section IV.D for additional mitigation measure text).

#49. The Joshua Tree Woodland area shall be protected by in situ preservation of the habitat or at the option of the City, acquisition of equivalent, offsite habitat within the Sphere of Influence of the City of Palmdale. Preservation is considered to include fencing of the site and dedication of an open space easement to the City of Palmdale. Areas adjacent to the woodland should have a 50 to 150-foot setback from the Joshua Trees, or other measures as recommended in a site specific biological study (see Section IV.D for additional mitigation measure text).

#50. The Maple Canyon Spring shall be protected by ensuring that trails do not direct people to the vicinity of the spring. The McCall Loop trail depicted on Exhibit 24 of the Specific Plan shall be reviewed to determine its proximity to the spring. The alignment of this trail will be modified if field inspections determine that the spring is visible from the trail, through the use of signs to keep hikers and equestrian users out of the area. The signs shall be erected prior to occupancy of any residential unit on the project site.

E. NOISE

Two characteristic noise sources are typically identified with land use intensification such as that proposed for the Ritter Ranch development. Construction activities, especially heavy equipment, will create short-term noise increases near any individual project site. Such impacts may be important for nearby noise-sensitive receptors when one subdivision is being built while others have been completed. Upon completion, project-related traffic will cause an incremental increase in areawide noise levels throughout the Antelope Valley area. This increase in noise levels will be a function of traffic volumes generated and will, therefore, gradually

#51. All construction and general maintenance activities, except in an emergency, shall be limited by City of Palmdale Municipal Code Section 828.030 to the hours of 6:30 a.m. to 8 p.m. Monday through Saturday. The operation of any machine, mechanism, device or contrivance during construction shall comply with noise limits in the City of Palmdale municipal noise ordinance.

#52. Development along internal and adjacent arterials will incorporate design measures or structural measures which will reduce noise levels to acceptable levels within the

IMPACTS

increase as Ritter Ranch and surrounding areas are developed. Onsite traffic noise will be mitigated to less than significant levels.

The Ritter Ranch Specific Plan proposes a seven-acre amphitheater in the northeast portion of the property (Planning Area 4I). This may result in occasional significant noise impacts upon the Lazy-T Ranch during musical events and/or large gatherings of people.

Other Annexation Areas

The 3,100 ADT is not considered a significant noise impact, and is within General Plan traffic forecasts for the subject areas. However, even this slight increase in noise levels will contribute cumulatively to noise impacts beyond the project area.

Offsite Noise Impacts

- Project plus cumulative development traffic would result in offsite areas being exposed to noise levels in excess of 60 dBA CNEL (Community Noise Equivalent Level), particularly along Elizabeth Lake Road. However, the majority of sensitive receptors are located west of Godde Hill Road, where traffic volumes drop considerably. East of Godde Hill Road, several existing residences in the Ritter Ridge area and the Lazy T Ranch will be exposed to significant noise levels under future traffic conditions.

Offsite Infrastructure Improvements

In addition to project noise impacts, regional Amargosa Creek Improvement Project facilities will result in temporary construction noise impacts along Elizabeth Lake Road.

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Living or recreational portions (as defined by the City) of any lot. The measures that may be utilized to reduce noise impacts include placement of non-residential buildings adjacent to the arterial roadway, increasing the setbacks along the roadway, creation of landscaped berms or other mechanical barriers. The acceptable noise level CNEL which will be applied to future projects will be that level which is in place, either by ordinance, regulation or General Plan policy, at the time that future development applications are deemed complete. Acoustical barriers shall be constructed along internal and adjacent arterials where necessary to reduce the CNEL to 60 dBA within the living or recreation portions (as determined by the City) of any lot.

#53. Elementary school and neighborhood park development should avoid the most heavily traveled village roadways to minimize traffic noise intrusion on these uses requiring relative quiet for concentration or serenity. Where necessary, noise mitigation such as barriers or sound walls will be employed.

#54. The Applicant shall participate in a regional noise mitigation program, if developed by the City, by funding a pro-rata share of offsite noise mitigation.

#55. The proposed amphitheater shall require a Conditional Use Permit. As part of the CUP review process, the Applicant shall provide City staff with sufficient detail to indicate that the amphitheater will not adversely affect offsite areas (as in orientation, screening and permitted activities). Adverse noise impacts shall be determined based on City Noise Ordinance provisions (with respect to peak noise levels and nuisance noise). The Applicant shall also provide City staff with possible alternative locations more proximate to residential areas, as within the Town Center area, but the alternative locations should not impact noise sensitive uses such as residential areas.

F. AESTHETICS/LIGHT AND GLARE

Impacts resulting from the project will primarily result from the removal of natural habitat/open space, grading of hillsides and filling portions of natural stream courses, thus significantly affecting the aesthetic character of the area. In areas where development may affect Juniper trees and scrub oak, especially on the north-facing slopes, significant adverse impacts may result due to tree removal and/or disruption. Although project design has provided substantial mitigation in the form of clustered development and extensive natural open space, significant impacts will remain after available mitigation.

The communities surrounding the Ritter Ranch property will be affected by construction related impacts.

The existing view of the Ritter Ranch Property from the scenic highway of Elizabeth Lake Road will be altered on certain segments of the roadway.

The primary significant viewshed impact is the direct visibility from south Palmdale during the day and light and glare which will be emitted from the development during the evening and night hours.

The proposed Equestrian Center (Planning Area 1A), amphitheater (Planning Area 4I) and Water Reclamation Plant (Planning Area 4H) could result in significant aesthetic impacts, depending on site-specific location, topographical screening, orientation and landscape screening.

Planning Areas 5 and 6 may have views of the Antelope Valley landfill to the east.

Other Annexation Areas

Potential future development of the other properties within the annexation area would have similar aesthetic impacts as Ritter Ranch although on a substantially reduced scale.

#56. During project construction, the Applicant shall be required to provide appropriate screening (as with temporary fencing with opaque material), dust control, restricted construction hours, and a traffic control plan.

#57. All required landscaping will be installed in accordance with City Standards in effect at the time of approval of the landscape plan, prior to issuance of occupancy permits for a particular area.

#58. The Applicant shall be required to submit a detailed Landscape Plan, to the satisfaction of the Director of Planning and the City Engineer (see Section IV.F for additional mitigation measure text).

#59. Landscaping will be consistent with the Specific Plan in order to maintain a cohesive theme across the project site, and in order to reduce aesthetic impacts of structures to adjacent roadways and residential properties.

#60. Any lights used to illuminate the parking areas, driveways, and other exterior or interior areas, shall be designed and located so that direct lighting is confined to the property. The Applicant shall submit photometric lighting plans for commercial, multi-family and recreational projects. In addition to directional lighting, lighting should not be of greater intensity (wattage) than otherwise necessary for public safety.

#61. Project design shall incorporate additional techniques to reduce light and glare in high visibility areas (see Section IV.F for additional mitigation measure text).

#62. Flood control improvements shall utilize natural channels and/or be composed of natural materials with interspersed vegetation to maintain existing aesthetic qualities, where feasible, without jeopardizing the adequacy of flood control.

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These areas would be visible from the southern portion of Leona Valley and Elizabeth Lake Road.

Offsite Infrastructure Improvements

Amargosa Creek Improvement Project regional facilities will require significant grading along Amargosa Creek. This is a significant unavoidable impact, although revegetation will reduce aesthetic impacts.

G. LAND USE

17 During construction and possibly beyond, the project could result in a significant increase in wind and water erosion/siltation on the property. Construction activities will produce short-term noise and aesthetic impacts.

As the Ritter Ranch property becomes developed, there will be an incremental loss of agricultural land. This loss of agricultural area will not be significant, in consideration of the substantial remaining areas in Leona Valley designated for heavy agriculture.

The current Los Angeles County zoning category for the Ritter Ranch property consists of A-2-2. The Ritter Ranch property is ~~proposed~~ to be annexed into the City of Palmdale, and developed consistent with the Land Use Policies and Development Standards contained in the Ritter Ranch Specific Plan (requiring a General Plan Amendment, Pre-Zone, Annexation and Sphere of Influence amendment consistent with the existing General Plan). Although Specific Plan design has substantially reduced land use impacts and has retained key rural features of the site, conversion of the proposed development area from rural open space to

MITIGATION MEASURES

#63. Disturbed and unlandscaped areas shall be replanted with native vegetation ~~compatible with the existing native vegetation~~, appropriate to the site, which will blend in with existing species.

#64. The project will follow the grading plans approved by the City and avoid disturbance of adjacent areas where possible.

#65. To the extent feasible, removal of existing native trees and vegetation shall be minimized during project construction and grading, particularly within existing natural channels (refer to Section IV.F, for more mitigation measure text).

#66. The Applicant shall annually evaluate all design guidelines, development standards and mitigation measures for the Ritter Ranch Specific Plan, submitting a Monitoring Report to the Director of Planning the first quarter of each year through buildout of the project. ~~In addition, the applicant shall submit aerial photos of the project site taken on a monthly basis when grading is occurring. The monitoring report shall include aerial photos of the project site, taken on a monthly basis during project construction.~~ Monitoring and verification of compliance with adopted applicable Specific Plan development standards shall also be performed prior to subsequent approvals, to determine if the proposed measures are achieving their intended purpose. ~~To the extent allowed by law, future discretionary approvals may include additional conditions of approval based upon City staff review of the Annual Monitoring Report. Nothing in this mitigation measure shall be construed to permit discretionary action beyond the extent permitted by State law.~~

residential and commercial/recreation uses is considered a significant unavoidable impact.

Surrounding land use impacts are expected to result from land use intensification and increased traffic and noise generation, due to the change in existing uses and increased urbanization.

Other Annexation Areas

100 Annexation of the other properties will also require a Pre-Zone to add the new zoning of the property to the City of Palmdale Zoning Ordinance (in addition to a General Plan Amendment, Annexation, and Sphere of Influence amendment). The proposed zoning allows one dwelling unit per acre, which is twice the residential density of the current two acre minimum lot County zoning. This increased density is not considered a significant land use impact to offsite areas, as onsite land use will remain compatible with surrounding uses (although future development could be a significant land use impact onsite due to conversion of aesthetically and biologically valuable open space). Future development applications in this area will require separate environmental review.

Offsite Infrastructure Improvements

The Amargosa Creek Improvement Project facilities would result in significant long-term impacts due to substantial physical changes resulting from grading associated with modifying the 5.9 mile long section adjacent to Ritter Ranch. These impacts are discussed more fully in the Amargosa Creek Improvement Project EIR which also provides mitigation to lessen these impacts.

H. PUBLIC HEALTH AND SAFETY

Adverse health effects may result from residential exposures to overhead power lines (numerous technical studies have not been conclusive, although a potential risk exists).

#67. In the areas where trash and debris have been dumped into stream channels within the property, near-surface soil samples and analysis of those samples for the

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There is a potential for the presence of hazardous materials at several locations within the site. The hunting club that operated a skeet shooting area and rifle and gun target practice area at two separate sites within the property may both contain lead contamination which may require removal by regulatory agencies. There are several other areas of concern in regards to potential sources of onsite contamination. There is a potential for the presence of hazardous materials from the refuse located within the stream channels in the eastern and northwestern portion of the site.

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I. TRAFFIC AND CIRCULATION

The Ritter Ranch development area will result in significant construction traffic along Elizabeth Lake Road and other local arterials. Potential congestion and safety hazards will

MITIGATION MEASURES

identification of chemicals or contaminants shall be collected prior to removal operations to evaluate landfill class designations for the debris.

#68. Prior to issuance of grading permits for the areas described below, further investigations shall be conducted for each area to ascertain the types and amounts of potential hazardous materials associated with the following: the former turkey ranch area; partially and completely buried refuse; the Hunt Club area; surficial debris and a locked trailer marked "Lockheed Emergency Vehicle"; and existing structures with the potential of containing asbestos fibers.

#69. If subsequent investigations of the site determine the presence of hazardous materials, the developer shall retain a licensed hazardous materials contractor to conduct clean-up of the site using proper disposal procedures (see Section IV.G for additional mitigation measure text).

#70. Although the right-of-ways surrounding the power transmission lines traversing the project site appear to be sufficient to protect residents, specific guidelines including the City of Palmdale Undergrounding Ordinance shall be incorporated into the project plans and are subject to approval by the City Engineer and City Planning Department (see Section IV.H for additional mitigation measure text).

#71. All project homeowners and tenants shall be advised of potential health risks associated with power transmission lines prior to close of escrow/execution of rental lease. Said notification shall be indicated in the applicable escrow, deed and/or lease documents in a format acceptable to the City Attorney.

#72. All road improvements shall be designed in accordance with City of Palmdale Specific Plan roadway design standards as approved by the City Engineer. Prior to Development Application approval, the applicant will be

be mitigated to less than significant levels with the required Traffic Control Plan.

The proposed Ritter Ranch is expected to generate 89,180 Average Daily trips (ADT). Trips generated by Other Annexation Areas were estimated at 3,100.

Project development would potentially impact all the study area streets and intersections, while growth in through traffic would primarily impact major north-south and east-west routes. These major through routes include Elizabeth Lake Road, Avenue S Ritter Ranch Road, 10th Street West/Tierra Subida Avenue.

Midblock Daily Analysis

Elizabeth Lake Road is projected to operate at an unacceptable level of service between 10th Street West and 20th Street West. Elizabeth Lake Road is projected to operate at LOS F just west of Bouquet Canyon Road with a projected daily volume of 15,100.

Ritter Ranch Road is projected to operate at LOS D just west of Tierra Subida Avenue.

Intersection Capacity Analysis

For the purposes of this study, the unsignalized existing intersections and all planned intersections were assumed to warrant a signal by the year 2010. All intersections will operate satisfactorily under assumed lane configurations during both the AM and PM peak periods.

Other Annexation Areas

The estimated 3,100 ADT from the five landholdings is not considered a significant traffic impact, and is within General Plan traffic forecasts for the properties (in fact, the DKS Associates study assumed 3,200 ADT for Messer Ranch alone). It should be further noted that no development

required to submit a Transportation Demand Management Plan and a Focused Traffic Study for review and approval by the Director of Planning and the Traffic Engineer, as appropriate, to determine the necessary improvements for impacts generated by that project. These plans shall be prepared in accordance with the Los Angeles County Transportation Commission's Congestion Management Plan and the City's transportation analysis guidelines, the City's transportation plan, and the Engineering Design Standards. Necessary improvements shall be determined by the City Traffic Engineer, and shall include, but not be limited to, all on-site and off-site road improvements to achieve a Level of Service D (peak period) or better with ultimate traffic projections. On the basis of this and other studies, the developer will improve or fund a pro-rata share of improvements. The developer shall pay appropriate traffic impact fees in accordance with City Ordinance 825, and all other fees for facilities and services that may be in place at the time of issuance of certificates of occupancy. Phasing of off-site improvements shall be determined by the City Engineer, as described in Section IV.I of the EIR.

#73. The applicant shall be required to submit a Traffic Control Plan for review and approval by the City Traffic Engineer, prior to issuance of grading permits, which incorporates state of the practice standards to minimize construction related traffic impacts. Said plan shall be consistent with traffic measures for the Amargosa Creek Improvement Project. All road improvements shall be provided in accordance with City design standards to the satisfaction of the City Engineer, prior to issuance of occupancy permits.

#74. The Ritter Ranch Specific Plan identifies ultimate on-site roadway cross sections and lane configurations necessary to serve the project at buildout. Phasing of on-site roadway improvements shall be in accordance with the Ritter Ranch Specific Plan Phasing Plan as approved by the City Public Works Department. The applicant shall be required to submit a Traffic Control Plan for review and approval by the City Traffic Engineer, prior to issuance of grading

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plans have been submitted for these Other Annexation Areas, and development of each of these properties will require separate environmental review.

Offsite Infrastructure Improvements

Road widening and channel improvements will require temporary lane closures and detours. Construction traffic will also cause significant congestion. Temporary construction traffic impacts will be mitigated by obtaining most of the fill material from the project area and by implementing a construction Traffic Control Plan. The project, individually and in combination with existing and future traffic, will result in significant regional traffic impacts, particularly in the southwest Palmdale area.

MITIGATION MEASURES

permits which incorporate state-of-the-practice to minimize construction-related traffic impacts. Said which incorporate state-of-the-practice standards plan shall be consistent with construction-traffic measures for the Amargosa Creek Improvement Project.

#75. Prior to development application approval, the applicant shall pay appropriate traffic impact fees in accordance with City Ordinance 815, and all other traffic fees and charges that may be in place at the time of issuance of Certificate of Occupancy. These traffic impact fees shall be used to fund offsite improvements needed to service the development and to offset from the traffic impact fees shall be used to fund offsite improvements to Elizabeth Lake Road, including the roadway west of Godde Hill Road as determined appropriate by the City Traffic Engineer (construction shall be completed prior to occupancy). Offsite improvements shall also be included (see Section IV.1 for additional mitigation measure text).

#76. The developer(s) of River Ranch may construct offsite roadway improvements in lieu of Traffic Impact fees, as approved by the City Public Works Department. If, as a result of project impacts, the level of service falls below either the standards set by the Los Angeles County Transportation Commission's Congestion Management Plan, or the policies set by the City's General Plan, the applicant shall implement improvements or services necessary to bring the roadway segment into compliance.

#77. The developer shall comply with the provisions of the Congestion Management Plan adopted pursuant to State law. The developer shall construct a four-lane divided

roadway section of Ranch Center Drive between Elizabeth Lake Road and Ritter Ranch Road, and a four-lane divided roadway section on City Ranch Road between Ritter Ranch Road and Ranch Center Drive.

J. CULTURAL RESOURCES

Archaeological/Historical Resources

The project will increase the exposure of the local sites to increased hazards of secondary impacts caused by a larger local population. An increased population near a site will expose that site to greater foot and equestrian traffic which would subject the site to increased vandalism, illegal collecting and unintentional damage. In addition, more people in an area will increase the water run off which may increase erosion of downstream prehistoric deposits.

Development of locations containing unexcavated archaeological/historical sites will disrupt or destroy the sites rendering them useless as cultural resources. However, in this case, the sites will be salvaged and/or protected prior to development with implementation of the required mitigation measures.

Paleontological Resources

Development of residential, commercial and recreational land uses upon areas containing paleontological resources will result in disturbance of these resources. Grading necessary for construction has the potential to disrupt and/or destroy valuable fossils. In addition, areas not subjected to grading may suffer indirect impacts due to increased human presence. The areas with the greatest potential for significant impacts are those with higher paleontological sensitivity ratings.

#78. Reports, maps, or figures with plotted site locations are considered confidential and are to be released only on a clearly defined "need to know" basis.

#79. Prior to issuance of grading permits for each area of the Ritter Ranch Road Plan, a qualified archeologist shall be retained at the expense of the developer to formulate and carry out an Archaeological Monitoring Program for that particular area. The Archaeological Monitoring Program as approved by the Director of Planning shall include, but not be limited to measures identified in this EIR and the 1990 RMW Paleo Associates report (Appendix 1) and the 1991 LSA Phase II Archaeology Report (dated June 14, 1991).

#79a. The following additional work shall be performed by a qualified archeologist, retained by the Developer, and approved by the Planning Director. Because the increased exposure of the sites to the public will result in the degradation of these archaeological sites, the required testing specified below and preparation of the subregional report shall be completed, and reviewed and approved by the Planning Director, prior to recordation of the first parcel map or final map prepared for the project.

LA-001: There is an additional petroglyph boulder that needs to be recorded. Since the site cannot be preserved in place as the project is currently designed, test units shall be excavated to determine whether subsurface deposits are present. If any are encountered, data recovery shall be conducted.

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MITIGATION MEASURES

Offsite Infrastructure Improvements

The Amargosa Creek Improvement Project regional facilities will require significant grading within areas expected to contain significant cultural resources. Prior to grading, a complete cultural resources survey will be completed and any significant sites will be salvaged or protected in place, as appropriate.

Those sites which contained surface artifacts but were not large enough to be located with at least one standard lot and portion. The testing program shall be reviewed by the City Planning Department for review and approval prior to commencement. In addition, proposed grave sites and burial mounds shall also be located in this manner. Any additional testing shall be required as a mitigation measure for the development application.

Grading shall be required to provide for the removal of the site. If the site is located within the area of the Amargosa Creek Improvement Project, the site shall be located within the area of the Amargosa Creek Improvement Project.

Grading shall be required to provide for the removal of the site. If the site is located within the area of the Amargosa Creek Improvement Project, the site shall be located within the area of the Amargosa Creek Improvement Project.

#80. Required research, salvaging and/or protection of known sites shall occur prior to approval of a grading permit within the affected area of resources (see Section IV.J for additional mitigation measure text).

#81. Monitoring during grading activities shall be accomplished by an archaeologist approved by the City Planning Department (see Section IV.J for additional mitigation measure text).

#82. Areas to be disturbed by grading shall be reexamined for cultural resources following removal of the vegetation cover and during initial grading stages.

Paleontological Resources

#83. Reports, maps or figures with plotted fossil localities are considered confidential, and are to be released only on a clearly defined "need to know" basis.

#84. Prior to issuance of a grading permit for each area of the Ritey Ranch Specific Plan, a qualified paleontologist shall be retained at the expense of the developer to formulate and carry out a Paleontological Monitoring Program for that particular area the site. The Paleontological Monitoring Program approved by the Planning Director shall include, but not be limited to measures identified in this EIR.

#85. A qualified paleontologist shall be retained to monitor and, if necessary, salvage scientifically significant fossil remains.

#86. The paleontologist shall have the power to temporarily divert or direct grading efforts to allow evaluation and, if necessary, salvage of exposed fossils.

#87. The matrix samples for microvertebrates shall be submitted for processing and identification at a facility such as the Los Angeles County Museum of Natural History.

#88. Paleontological monitoring efforts shall be based on the sensitivity of the geological units being excavated, the number of equipment in operation at one time, and the amount of material (in cubic yards) being moved (see Section IV.J for additional mitigation measure text).

#89. Matrix samples for microvertebrate screening shall be collected and processed during monitoring (see Section IV.J for additional mitigation measure text).

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K. PUBLIC SERVICES AND UTILITIES

Police Service

25 The development of this vacant land will place an increased demand for services beyond what is currently being expended on the property. Impacts upon existing police services will be significant although revenues from project sales tax and property taxes will fund a portion of the required additional equipment and manpower. Significant cumulative impacts are expected for police response time if a new police station is not constructed within the project vicinity. The 309 units allowed in the Other Annexation Areas are not expected to directly cause significant impacts to police service. However, they, along with the other projects proposed nearby, will cumulatively impact police services.

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*#90. All fossils collected need to be prepared to the point of identification. These remains should be donated to an institution with an educational and/or research interest in the materials and a retrievable storage system.

*#91. A final report summarizing findings, including an itemized inventory, contextual stratigraphic data, and photographs shall accompany the fossils to the designated repository with an additional copy sent to the City of Palmdale Planning Department.

*#92. Adequate emergency access and circulation throughout and around the project shall be provided to the satisfaction of the Los Angeles County Sheriff's Department. Temporary emergency access shall be provided during project construction.

*#93. Adequate lighting shall be provided to enhance crime prevention and law enforcement efforts to the satisfaction of the Los Angeles County Sheriff's Department.

However, lighting shall be designed and located so that direct lighting is not directed at the property, and lighting should not be of excessive intensity (footage) from otherwise necessary for public safety.

*#94. Proper address signs shall be provided for identification of locations during emergencies.

*#95. The Applicant shall consult with the Los Angeles County Sheriff's Department regarding landscape standards to ensure that landscape features do not conceal potential criminal activity around buildings and in parking areas. This measure will be implemented to the satisfaction of the City of Palmdale Planning Director and City Engineer, prior to staff acceptance of the Landscape Plan. Landscape-feature standards which do not conceal potential criminal activity

around buildings and in parking areas shall be provided. This measure will be implemented to the satisfaction of the Los Angeles County Sheriff's Department.

#96. ~~The applicant must participate in funding of a new police station and associated equipment as determined by the Los Angeles County Sheriff's Department. This may include acquisition of a 15-acre regional facility offsite funding for acquisition of a site, construction of the facility or other requirements as determined by the Los Angeles County Sheriff's Department.~~

Library Service

A project of this size, and in its present location, would present special adverse effects upon library service, particularly to project residents. The Palmdale City Library facility would be unable to meet the needs of the new community, and its residents may find it inconvenient to drive to the center of town for library services. The distance, numerous streets, railroad crossings, and geographic barriers may result in a commute exceeding the optimum acceptable 15 minute drive time. With implementation of the recommended mitigation measure, impacts are anticipated to be reduced to less than significant levels.

Schools

The Westside School District has provided estimates of 3,015 elementary school students and 1,005 middle school students generated from the Ritter Ranch development. This estimate did not include the 494 senior housing units proposed for Planning Unit 5Q. However, since fair housing laws can not preclude children from occupying these homes with their senior relatives, some students could potentially be generated from these units. Therefore, the senior dwelling units could generate approximately 220 additional elementary school students and 75 additional middle school students. It is expected, however, that the generation rate from this type

~~There are no feasible mitigation measures which can be placed on this project to alleviate significant project-related impacts to library services.~~

#97. ~~The applicant shall construct a branch library facility within the Ritter Ranch community, to be a minimum size of 16,000 square feet and have a book collection of approximately 50,000 volumes. The applicant shall reserve a site of adequate size as reviewed and approved by the City. The applicant may enter into a reimbursement arrangement, as approved by the City, with the adjacent developer to share the cost of this facility.~~

#98. All schools shall be required to implement safety programs (in accordance with State and City Guidelines). See Section IV.K for additional mitigation measure text.

#99. ~~Letter to Westside Union School District. The agreement, dated January 28, 1991, between the developer and the Westside Union School District as mitigation for impacts caused by development of the project on the Westside Union School District (refer to Section IV.K for additional mitigation measure text).~~

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of dwelling unit would be substantially lower than the standard of 0.60 students per household.

The Ritter Ranch Specific Plan identifies five elementary school sites and one middle school site. Based upon the projected capacities described above, the project will provide school facilities for 3,300 elementary school students (traditional schedule) and 800 middle school students (traditional schedule). Assuming a year-round schedule, these schools could accommodate 3,910 elementary school students and 960 middle school students. Therefore, the project will provide sufficient capacity for all elementary school students and 75% to 88% of the middle school students expected from the proposed project.

27 Schools proposed to be located on arterial roadways could pose safety hazards to students who will be required to cross them. These risks will be reduced through implementing 25 mph speed limits during school hours and by requiring such schools to implement safety programs which would require cross-walks and crossing guards to be on duty according to City Guidelines to assist students in crossing the street safely.

Telephone Service

It is anticipated that existing telephone facilities will require extension and/or relocation. The proposed project is not anticipated to create adverse impacts to Pacific Bell's service ability.

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~~(B) Antelope Valley Union High School District. The Developer shall provide the mitigation to the District in order to ensure that the project complies with the District's 50% per capita standard for a new high school on the site pursuant to the California Education Code and Education Code Section 51942.01. (see Section IV.K for additional mitigation measure text.)~~

~~The applicant shall dedicate school sites and construct new and/or interim school facilities as determined necessary by the Planning Director according to the specifications provided by the Westside Union School District and the Antelope Valley Union High School District to accommodate the students generated by the Ritter Ranch development. The facilities shall be provided within the timeframes set by the School Districts to accommodate the project's student population (see Section IV.K for additional mitigation measure text.)~~

~~#99a. Prior to completion of the permanent school facilities, the applicant shall provide interim facilities, which may include but shall not be limited to, classrooms, administration offices, and ancillary facilities, as may be required to house students generated by the proposed project on an interim basis.~~

#100. Onsite telephone facilities shall be provided by utilizing joint trenches.

#101. Developers of individual properties within the Specific Plan area will be responsible for payment of assessment fees and installation of required conduits prior to issuance of occupancy permits.

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Electrical Service

The Ritter Ranch project will require approximately 39 megawatts or 4 circuits. An update of SCE facilities may be required to service the project. Also, several existing designs will have to be updated to handle the new load. Short-term construction or related impacts and potential adverse significant impacts are not anticipated by SCE.

Water Service

The Project will require a significant amount of water and significant onsite and offsite water facilities. Water demand is estimated at over 7,000 acre-feet per year. Water system improvements will be required to provide an adequate water supply to the proposed Ritter Ranch project area.

- 28 If the AVEK supply is interrupted, water will be provided to Ritter Ranch from new groundwater wells pumping approximately 6,000 gallons per minute (gpm) from the Lancaster Subunit.

MITIGATION MEASURES

#102. All ~~power~~ power lines shall be placed underground (consistent with the City's current Underground Ordinance) by the applicant prior to issuance of occupancy permits.

#103. The project applicant shall coordinate with SCE to ensure that adequate electrical service is provided to the proposed development and that service connection activities will be performed in cooperation with SCE to minimize any short-term impacts.

#104. The applicant shall cause the project area to be annexed to the Los Angeles County Waterworks District #34 service area.

#105. As required by state law, water conservation measures will be incorporated into the project (see Section IV.K for additional mitigation measure text).

#106. Additional interior and exterior water conservation measures shall be implemented where applicable and feasible (see Section IV.K for additional mitigation measure text).

#107. Provision of water service to the proposed project will be required as a part of the project development and will occur to the satisfaction of the City of Palmdale prior to issuance of building permits. Project implementation will require mitigation in coordination with the City of Palmdale, Los Angeles County Waterworks District No. 34 and the Los Angeles County Fire Department.

#108. Above-ground water storage tanks shall be designed with appropriate grading, color and landscaping techniques to minimize visual impacts to be reflected in applicable Landscape Plans and Grading Plans.

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Sewer Service

Buildout of the project would result in increased effluent volumes (approximately 2.1 million gallons per day). The extension or construction of several sewer lines may be needed in order to serve the development. Impacts of construction will be reduced to less than significant levels if the sewer lines are constructed during the grading phase of the development. The wastewater anticipated to be generated by the project, as well as the cumulative effect of additional wastewater resulting from other proposed projects, will constitute a significant increase over the existing demand. The Connection Fee Program of the Los Angeles County Sanitation District will provide the funds necessary to construct sewer relief and treatment plant expansion.

MITIGATION MEASURES

#109. The project developer will be required to pay sewer assessment fees, will provide adequate onsite wastewater conveyance facilities, and will conform with City Public Works Department and County Sanitation District No. 20 development standards pertaining to wastewater. All structures/facilities will connect to the sanitary sewer system. No septic systems will be allowed with the possible exception of restroom facilities located in the remote specialty parks. (refer to Section IV.E for additional mitigation measures and)

In the event that the Developer of the Ritter Ranch Specific Plan constructs off-site sewer lines within the Los Angeles River Basin, the developer shall consult the project engineer for a preliminary spill response plan. The plan shall include provisions for spilled sewage treatment, spill response, cleanup, storage and distribution measures, and training and funding for implementation of the spill plan. The plan shall be reviewed by the Los Angeles Regional Water Quality Control Board and Sanitation District No. 20 and approved and approved by the Director of Public Works and the Director of Planning.

#110. Any sewer proposed for incorporation into the Sanitation Districts trunk sewer network for operation and maintenance, shall be reviewed and approved by the Sanitation District, prior to any construction.

#111. Onsite local sewers shall be designed and approved by both the County of Los Angeles Department of Public Works and the City of Palmdale.

#112. Site-specific development plans shall require review and approval by the Los Angeles County Fire Department with respect to adequate fire flows, emergency access and building construction standards.

Fire Service

Fire emergency incidents can be expected to increase as a consequence of project development. The Ritter Ranch Specific Plan project requires additional manpower and

equipment such as a fire engine and/or rescue vehicle to accommodate this expected increased workload.

The potential to cause fire will increase due to construction equipment, welding, fuel storage and smoking. Long-term risks will increase due to structural fires spreading to native vegetation and surrounding areas, hot ashes and sparks from chimneys, and a general increase of human activity in open space areas. Planning Area 3 may have only one access road which is considered a potentially significant impact to fire service.

Park and Recreation

Adequate local parks are anticipated with the project. Construction of the park facilities and dedication to the City will be required to potential impacts to park service. The project also proposes a golf course (open to the public), and 7,600 acres of open space. Multi-use trails, including hiking and biking trails, could result in safety hazards to hikers and bicyclists. However, required mitigation measures will reduce this impact to less than significant levels.

#113. The applicant shall provide a pumper truck and patrol car prior to the issuance of the 250th Certificate of Occupancy, and provide a fully operational fire station of an acceptable size and location as determined by the Los Angeles County Fire Department; Building and Safety by the 1,800th Certificate of Occupancy. ~~fire service facilities and apparatus in proportion to the demand created by the development project, as required by the Los Angeles County Fire Department. These facilities shall include a fire station to be constructed within Planning Area 2B.~~

#114. If only one access is provided within Planning Area 3, the Applicant shall install fire sprinklers within all residential units, provide an additional 25 foot width on the access road, and provide a helipad for fire service access for approval by the Los Angeles County Fire Department prior to issuance of occupancy permits.

#115. The applicant shall ~~pay park fees or~~ dedicate and construct the improvements for the proposed community, neighborhood and specialty park facilities shown in the Specific Plan as approved by the Director of Parks and Recreation ~~pursuant to Ordinance 789.~~

#116. Prior to issuance of grading permits for each area of the ~~Ritter Ranch Specific Plan~~, the applicant shall provide appropriate safety etiquette signs for all off-street trails, particularly at trail parking facilities and trail segments with limited sight distance, in order to minimize safety hazards to bicyclists, pedestrians and equestrians (see Section IV.K for additional mitigation measure text).

#117. The applicant shall install lighting along pedestrian trails located within the urban areas to provide adequate public safety as determined appropriate by the City Traffic Engineer (see Section IV.K for additional mitigation measure text).

IMPACTS

MITIGATION MEASURES

Solid Waste Service

The project is estimated to generate over 40 tons per day of solid waste. The project will result in a significant individual and cumulative increase in solid waste generation, and may generate hazardous materials that would require disposal in a Class I landfill.

#117a. The trails plan for the Ritter Ranch Specific Plan shall be reviewed for consistency with any trails plan or recreation management plan that may be prepared for the portion of the Angeles National Forest abutting the project area. Where the plans are inconsistent, the Ritter Ranch trails plan will be modified to conform with the Forest Service's plan.

#118. Information shall be provided as reviewed and approved by the City to business owners concerning the recycling services in the development area at the time of occupancy (see Section IV.K for additional mitigation measure text).

#119. The applicant shall distribute an educational pamphlet to homeowners at the time of occupancy, describing the solid waste disposal problem and methods of reducing solid waste impacts that are available to project residents as reviewed and approved by the City.

~~#120. Trash compactors shall be provided in each residential unit.~~

#121. The applicant shall provide solid waste recycling center(s) onsite to serve commercial, active recreation and residential areas, to the satisfaction of the City Director of Public Works (to be verified at design level review for each Development Application).

#122. Where applicable the applicant shall comply with the provisions of the City's Source Reduction and Recycling Element, and the City's Household Hazardous Waste Element, after those elements are adopted by the City Council.

Gas Service

Average consumption is estimated at 1,095 therms per year per single-family dwelling unit. No significant impacts are anticipated by Southern California Gas Company.

Maintenance

Development of the project will result in the creation of 121 acres of parks, 15 acres of parkway, 60 miles of streets, 85 miles of trails and 117 acres of flood control basins which will be maintained by the City of Palmdale. This represents a significant increase in the City's maintenance responsibilities. The mitigation measures proposed will reduce the impacts to project maintenance to less than significant levels.

Radio Communications

The project site is in a location that is presently outside the range of the current radio communications systems which serve the City. This system is used for daily radio communications for City employees as well as for emergency communications for sheriff and fire service. If this

No Mitigation Measures are required.

There are no feasible mitigation measures which can be placed on this project to alleviate significant project-related impacts to maintenance.

#123. The applicant shall pay a pro-rata share of a facility (maintenance building and offices) which will support the maintenance of streets, parks, parkways, open space, and drainage facilities within the development, within the timeframe required by the Director of Public Works. The construction of the facility shall include acquisition of a site, site development, temporary facilities, and construction of permanent facilities in stages as required to provide the necessary maintenance services required by the development infrastructure.

#124. The applicant shall pay a fair share of and/or cause to be purchased certain maintenance equipment necessary for maintenance operations at such time as they are needed for maintenance of project infrastructure.

#125. The applicant shall agree to participate in an Assessment District or Community Facilities District for the maintenance of streets, drainage facilities, park, parkways, trails and other public facilities.

There are no feasible mitigation measures which can be placed on this project to alleviate significant project-related impacts to radio communications.

IMPACTS

condition is not remedied, this could represent a potentially significant impact to public health and safety. However, the required mitigation measures will minimize this impact to less than significant levels.

Offsite Infrastructure Improvements

In addition to onsite facilities, the project applicant will be participating in the Amargosa Creek Improvement Project facilities, including water, sewer, electric, gas, stormdrain, telephone and cable lines (to be installed within the widened and realigned Elizabeth Lake Road).

MITIGATION MEASURES

~~#126. The developer shall provide their pro-rata share towards the implementation of the findings of the radio communications needs study currently being prepared by the City. This may include providing a site for the construction of a radio repeater, construction of the repeater, or providing funding for the acquisition and construction of such improvements, as determined by the City's Emergency Services Coordinator.~~

C. SUMMARY OF ALTERNATIVES

The following is a summary of project alternatives described in Section VI, ALTERNATIVES TO THE PROPOSED PROJECT. Refer to Section VI for a complete discussion of project alternatives.

"NO DEVELOPMENT" ALTERNATIVE

The "No Development" alternative would not result in any of the environmental impacts associated with the proposed construction and development of approximately 10,625 acres of residential, commercial, institutional and recreational uses (no development plan has been proposed for the 309-acre portion of the Other Annexation Areas zoned for rural residential the project does not propose development of the 449-acre Other Annexation Areas). Implementation of this alternative would retain the existing natural open space and undeveloped character of the project site and would avoid any adverse physical or environmental impacts associated with development. The "No Development" alternative would be environmentally preferable to the proposed project. However, this alternative is not considered at present, as it would not be consistent with the proposed City of Palmdale General Plan and would not provide needed housing, recreational uses and infrastructure improvements.

"NO PROJECT/EXISTING ZONING" ALTERNATIVE

The "No Project" or "Existing Zoning" alternative would permit the development of the Ritter Ranch project site based on current lower density Los Angeles County land use designations. The existing zoning for the properties is Los Angeles County A-2-2 Heavy Agriculture (2 acre minimum lot size), and the current land use designation is Non-Urban (0.5 dwelling units per acre). The maximum number of dwelling units under this alternative, which would be permitted by the Antelope Valley Area Plan and County Hillside Management Policies, would be 4,203 (on 10,934 acres). Site development under present land use designations would therefore result in construction of approximately 5,313 dwelling units on the project sites (on 10,625 acres). No commercial uses would be included except for local serving commercial uses as needed throughout the development as permitted by the Antelope Valley Area Plan.

The approximately 45 to 30 percent reduction in total dwelling units under this alternative would be anticipated to result in roughly 45 to 30 percent reductions in some environmental

impacts (related to traffic and land uses). The impacts of this alternative are anticipated to be reduced relative to the proposed project in all areas analyzed. The loss of employment opportunities and commercial services may be significant. It must be stressed that this is only a rough estimate and that actual reductions in impacts are dependent upon site plans, phasing and numerous other factors. This alternative could reduce significant project impacts and may be considered by the Planning Commission and the City Council.

"REDUCED SCALE" ALTERNATIVE

The "Reduced Scale" alternative entails the development of the project site in a reduced development area, in order to further reduce hillside intrusions and impacts upon adjacent residential areas, biological resources and drainage. This could be achieved by eliminating some residential lots in certain steeper hillsides, reducing the size of the golf course, reducing lot sizes, reducing the number of dwelling units, or a combination of the above. It is anticipated that impacts upon the biological, geological, aesthetic and hydrologic aspects of the site would be reduced due to reduced development area. Traffic, air quality and noise impacts would be reduced with this alternative due to reduction of total dwelling units. Impacts upon public services and utilities of the area would also be decreased with implementation of this alternative due to the reduced development density.

The "Reduced Scale" alternative would substantially reduce certain environmental impacts associated with the project as noted above. However, this alternative would not be expected to avoid the identified significant impacts of the project which is presently configured to minimize environmental impacts and to retain extensive open space areas. This alternative would reduce environmental impacts and is the environmentally superior alternative. However, it may not be financially feasible due to substantial "fixed" infrastructure costs.

"RESIDENTIAL ONLY" ALTERNATIVE

If a "residential only" alternative is undertaken, most of the environmental impacts associated with the proposed project would be similar to those of the proposed project. This alternative would not include the neighborhood commercial uses (73 acres) or schools (126 acres) as currently proposed. The land use of the project site would be altered from open space to that of a residential community. Hydrological, geological, biological, public health, and cultural/scientific impacts are anticipated to be similar to those associated with the proposed project, due to similar area being graded to accommodate residential communities. Impacts associated with land use would be similar to those of the proposed project as this

alternative would also be inconsistent with the land use designations of the Los Angeles County Area Wide General Plan (assuming similar residential units would be provided). Local traffic, noise and air quality impacts would be slightly decreased due to no development of onsite commercial or school sites. However, regional traffic and consequential air quality impacts would be greater than those of the proposed Specific Plan due to a job/housing imbalance and loss of local onsite employment/service opportunities. Light and glare impacts would also be decreased due to the absence of signage for the commercial uses. No significant advantage over the proposed project would be anticipated.

"ALTERNATIVE SITE" ALTERNATIVE

The following discussion investigates two alternative sites which could possibly be considered for the proposed project. The alternative sites include the proposed Palmdale Regional Airport property and a "Rural Desert" location.

Palmdale Regional Airport Site

The Palmdale Regional Airport site is located north and east of downtown Palmdale. The site covers approximately 18,000 acres, which would accommodate the proposed Ritter Ranch project. ~~Physically, the site is relatively level compared to the Ritter Ranch property.~~ Physically, the site is relatively level compared to the Ritter Ranch property. An environmental constraint with the development of the Palmdale Regional Airport alternative location is regional flood hazard from the Little Rock Wash, which traverses the central portion of the site from south to north. Project compatibility with the existing uses in the vicinity of the site would be of concern (such as compatibility with Air Force Plant 42 to the west).

Development on this site would reduce impacts due to hillside grading and development near the San Andreas fault. In addition, the impacts upon the viewshed of the Sierra Pelona Ridge from the valley floor would be eliminated. The proposed project would result in similar effects to traffic, noise, air quality and public services and utilities. Given the significant cultural resources on Ritter Ranch, the airport site is expected to result in similar or reduced cultural resource impacts. This alternative site would reduce potentially significant impacts of the project (aesthetics and biological resources) and is considered ostensibly feasible. However, due to the potential land use conflicts with Air Force Plant 42 and the proposed Palmdale Regional Airport, this site is not considered suitable for a master-planned community.

Rural Desert Site

The "Rural Desert" site alternative proposes that the Ritter Ranch project be developed in the flat valley floor of the Antelope Valley (as in the presently rural portions of Palmdale or Lancaster). Development of the proposed project in a rural desert setting could reduce several of the environmental constraints associated with construction in mountainous terrain. Intrusions into the hillsides could be reduced as could the aesthetic impact of the project from the valley floor. In addition, an alternative rural desert site may avoid certain site specific constraints such as a potential land use incompatibility of the proposed project with the community of Leona Valley and the seismic considerations. Impacts on public services and utilities could be reduced if the site were located within an established service area. Regardless of the project location, the proposed project would result in similar effects upon traffic, noise and air quality.

This alternative may have increased land use impacts relative to the proposed project. Implementation of this alternative in a rural desert location could reduce the amount of natural open space, equestrian and hiking/biking trails which are proposed in the Ritter Ranch Specific Plan. This alternative is ostensibly feasible, however, it may not meet the project objectives of providing a hillside residential community with substantial regional recreational and open space amenities.

D. AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Adjacent Rural Areas (Leona Valley)

Due to the location of the Ritter Ranch project within the Leona and Anaverde Valleys, which are presently rural areas, this project is considered controversial by adjacent residents. However, the project has been designed to minimize impacts to the rural Leona Valley community by requiring two-acre minimum lot sizes along to the western boundary of the project site. In addition, the project as proposed, minimizes hillside development and proposes to provide approximately 7,582 acres as open space. This Environmental Impact Report addresses the environmental impacts and controversial issues associated with the proposed project.

Offsite Infrastructure Improvements

The Ritter Ranch project site does not presently have immediate access to public utilities (including water, sewer, electricity, cable, telephone and natural gas). Therefore, prior to

project development these facilities must be extended to provide adequate service for the proposed project site. In addition, the project will require substantial offsite road and flood control improvements. These offsite improvements are also necessary for other projects in the vicinity (including City Ranch Specific Plan to the east and the Santa Fe Specific Plan to the north) and are necessary to correct existing flood control hazards. The City of Palmdale has initiated an Assessment District to construct some of these regional facilities (Amargosa Creek Improvement Project - Phases I and II). The Assessment district facilities will result in various physical impacts due to associated Amargosa Creek improvements, as well as significant potential growth inducing impacts due to extending regional utility lines up into Leona Valley (terminating at Godde Hill Road). Contact the City of Palmdale Planning Department for additional information regarding the Amargosa Creek Improvement Project Phases I and II, and the status of EIRs for the Assessment District.

Hillside Development/Loss of Open Space

The Ritter Ranch Specific Plan will result in the loss of over 3,000 acres of open space area as a result of residential and neighborhood commercial development. Although more than half of the property will be preserved for open space, several parks, and a golf course, the conversion of open grassland areas and hillside intrusions represents a significant landform, aesthetic and land use impact.

Traffic Generation

The Ritter Ranch Specific Plan is estimated to generate 89,180 Average Daily Trips (ADT). According to traffic forecasts and preliminary capacity and circulation deficiency analysis conducted using the City of Palmdale's Travel Demand Model, travel demand on the area's circulation system will increase substantially as a result of overall development of the study area as well as within Antelope Valley. Project development would potentially impact the study area streets and intersections, while growth in through traffic would primarily impact major north-south and east-west routes. Section IV.I, TRAFFIC AND CIRCULATION, identifies recommended improvements to the existing arterial system to accommodate development in the project area. In addition, the City of Palmdale has initiated an Assessment District to construct some of the regional facilities necessary to accommodate future development (Amargosa Creek Improvement Project Phases I and II). This will include the widening of Elizabeth Lake Road from 20th Street West to Godde Hill Road. The significant increase in local traffic and the required offsite road improvements are considered a significant impact to the local traffic conditions.

II. INTRODUCTION

II. INTRODUCTION

A. PURPOSE

The purpose of this Environmental Impact Report (EIR) is to review the existing conditions, analyze the potential environmental impacts and suggest feasible mitigation measures to reduce significant adverse environmental effects of the proposed project to acceptable levels. The "project" addressed in this EIR consists of the 10,625-acre Ritter Ranch Specific Plan, and 449 acres of "Other Annexation Areas", including 309 acres on five small landholdings and 140 acres on two microwave station sites. The project will require extensive offsite infrastructure improvements, including roadways, utilities and drainage facilities. These offsite improvements are discussed in the EIR, although detailed environmental analysis will be provided as part of the Amargosa Creek Improvement Project (environmental review in process). The EIR also provides analysis of cumulative and growth-inducing impacts, and extensive comparative analysis of alternatives that could reduce or avoid significant impacts while attaining the basic project objectives. The Ritter Ranch Specific Plan property is located in the unincorporated portions of Los Angeles County, southwest of the City of Palmdale. Ritter Ranch is generally bound on the north by Ritter Ridge, on the east by the extension of 35th Street West, on the south by the Sierra Pelona Ridge, and on the west by Bouquet Canyon Road (80th Street West), the Angeles National Forest and the community of Leona Valley. The Ritter Ranch Specific Plan area is proposed for annexation into the City of Palmdale and will require a General Plan Amendment. The "project" also includes approximately 449 acres of "Other Annexation Areas" to avoid "islands" of unincorporated areas in the Ritter Ranch vicinity, and therefore are also proposed for annexation into the City (also requiring a Sphere of Influence Amendment). These "Other" properties will require a General Plan Amendment and a Pre-Zone to add the parcels to the City General Plan and to the Zoning Ordinance, respectively. This EIR is intended to address all environmental aspects of project annexation, construction, adoption of the General Plan Amendments and development. For more detailed information regarding the proposed development, please refer to Section III, PROJECT DESCRIPTION.

The project addressed within this EIR is defined as all actions associated with annexation and development of the Ritter Ranch Specific Plan and annexation of 449 acres on adjacent properties (no development has been proposed for the other properties). This includes, but is not limited to, direct and indirect effects resulting from implementation, construction and ultimate buildout of the proposed project. This EIR will be used by the City of Palmdale, and any other responsible agencies, trustee agencies and interested parties to evaluate the

environmental impacts of the proposed project. The Draft EIR will be available for public review at the City of Palmdale Planning Department and the City of Palmdale Public Library, as indicated in the Draft EIR Notice of Completion. Refer to Section III.G, AGREEMENTS, PERMITS AND APPROVALS, for a list of required project approvals.

B. COMPLIANCE WITH CEQA

This EIR has been prepared in conformance with CEQA (the California Environmental Quality Act). The principal CEQA Guidelines Sections governing content of this document are Sections 15120 through 15132 (content of an EIR).

Pursuant to state and local CEQA guidelines, the City of Palmdale prepared an Initial Study (refer to Appendix A, INITIAL STUDY/NOTICE OF PREPARATION). The City determined that the project may result in significant adverse effects and therefore requires an EIR. This determination was based on an Initial Study, prepared by the City of Palmdale, and a preliminary review of available project information.

C. SCOPE OF THE EIR

An Initial Study and a Notice of Preparation for the proposed project were distributed by the City of Palmdale on December 6, 1989. The Initial Study consists of a project description, checklist and discussion of anticipated significant environmental impacts of the project.

This EIR addresses potential significant impacts identified in the Initial Study. Additionally, this document includes relevant issues raised during the 30-day Notice of Preparation Review Period, which occurred from December 8, 1989 to January 8, 1990. The Initial Study identified the following topics requiring analysis within the EIR:

- **Earth Resources**
- **Air Resources**
- **Water Resources**
- **Biological Resources**
- **Noise**
- **Aesthetics/Light and Glare**
- **Land Use**
- **Public Health and Safety**

- Traffic and Circulation
- Cultural Resources
- Public Services and Utilities

D. USE OF THE EIR

The EIR is part of the project review process for the proposed Ritter Ranch Specific Plan and the "Other Annexation Areas". It is the intent of this EIR to enable the City of Palmdale, other responsible agencies, and interested parties to evaluate the environmental impacts of the proposed project. This EIR provides measures to mitigate potential significant impacts of the project and identifies any impacts which cannot be mitigated to a less than significant level of significance. The EIR also provides additional CEQA mandated discussions, including cumulative impacts, growth inducing impacts, and an analysis of alternatives to the proposed project that could feasibly attain the basic objectives of the project (refer to Section VII, INVENTORY OF MITIGATION MEASURES and Section VIII, INVENTORY OF UNAVOIDABLE SIGNIFICANT IMPACTS).

III. PROJECT DESCRIPTION

III. PROJECT DESCRIPTION

A. PROJECT LOCATION

The project site is located in a currently unincorporated portion of Los Angeles County; however, the approximately 10,625-acre Ritter Ranch Specific Plan and approximately 449 acres of parcels referred to as "Other Annexation Areas" are proposed for annexation into the City of Palmdale. The City of Palmdale is located in the Antelope Valley approximately 65 miles north of the City of Los Angeles. Access to Palmdale is provided by the Antelope Valley Freeway (SR-14) and County Route N2 (Elizabeth Lake Road). Communities neighboring the project area include Leona Valley to the west, the City of Palmdale directly north and the City of Lancaster to the distant north (refer to Exhibit 1, REGIONAL LOCATION).

The Ritter Ranch property is situated on the north- and south-facing slopes of the Sierra Pelona Ridge and slopes northward down to the Amargosa Creek, which runs west-east along the northern property line. Development would occur on the lower north-facing slopes only. The project would be developed on the 10,625-acre site with the boundaries generally south of Elizabeth Lake Road, between 35th Street West and 80th Street West (Bouquet Canyon Road). Primary access to Ritter Ranch would be provided through Elizabeth Lake Road and Avenue S which intersect with the Antelope Valley Freeway (SR-14) approximately four miles east of the site. Elizabeth Lake Road would be improved to accommodate traffic generated from Ritter Ranch and surrounding developments (refer to Exhibit 2, VICINITY MAP and Exhibit 3, AERIAL PHOTOGRAPH).

The additional properties included within the annexation area are located south of Elizabeth Lake Road. These areas presently have a few scattered single-family homes adjacent to Elizabeth Lake Road. In addition, the Lazy-T Ranch is located adjacent to Elizabeth Lake Road near the future alignment of Ranch Center Drive. Currently there are no development plans for these properties.

Master planned communities within the immediate vicinity are currently in various phases of project development and/or processing. These projects include Santa Fe Hills Specific Plan to the northeast and the City Ranch Specific Plan to the east.

Table 2

PLANNING AREAS STATISTICAL SUMMARY *

<u>Planning Area</u>	<u>Dwelling Units</u>	<u>Gross Acres</u>	<u>Gross Density</u>
1. Golf Course	955	835	1.1 DU/Ac
2. West Highlands	232	461	0.5 DU/Ac
3. North Ridge	180	159	1.1 DU/Ac
4. Lakeside	599	621	1.0 DU/Ac
5. Ranch Center	2,587	656	4.0 DU/Ac
6. East Highlands	2,647	2,725	1.0 DU/Ac
7. West Ridge	--	2,501	-- DU/Ac
8. East Ridge	--	2,667	-- DU/Ac
TOTALS	7,200	10,625	0.68 DU/Ac

Source: Ritter Ranch Specific Plan (August 5, 1991).

* The transfer of dwelling units between Planning Areas will be allowed in accordance with criteria specified in Section 8 of the Specific Plan.

III. PROJECT DESCRIPTION

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Master planned communities within the immediate vicinity are currently in various phases of project development and/or processing. These projects include Santa Fe Hills Specific Plan to the northeast and the City Ranch Specific Plan to the east.

B. ENVIRONMENTAL SETTING

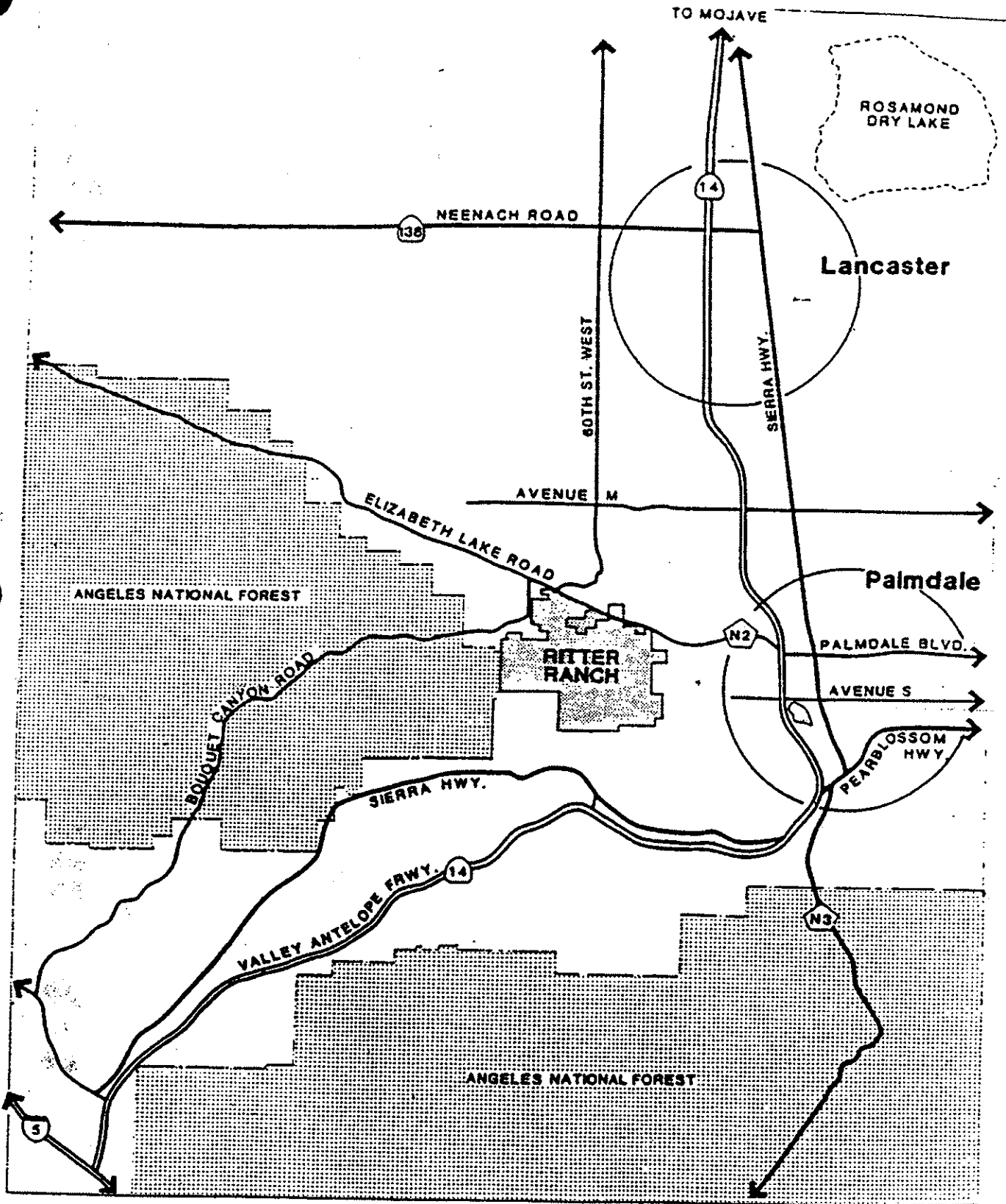
The Ritter Ranch and the adjacent properties included in the annexation are located in the southwest portion of the Antelope Valley basin, within the tributary Leona and Anaverde Valleys. The Sierra Pelona Ridge, Ritter Ridge, Leona Valley and Anaverde Valley are regionally significant landforms. The rural Leona Valley (created by the San Andreas Fault Rift Zone) extends through the northern portion of Ritter Ranch. Amargosa Creek runs east-west along the northern portion of the Ritter Ranch site. The Anaverde Valley headwaters begin on the east side of the Ritter Ranch site, extending easterly beyond the Ritter Ranch boundaries.

Ritter Ranch

The prominent physical features are Mt. Odell (5,217 feet above sea level), Mt. McDill (5,187 feet) and the Amargosa Creek (the lowest point at 2,830 feet). The Sierra Pelona Mountain Ridge defines the southernmost boundaries of the Amargosa and Anaverde watersheds. The San Andreas Fault Zone traverses east-west through the northern portion of the property. Runoff flows generally northeast to east down various tributaries, ultimately reaching the Amargosa Creek (northern and western areas) or Anaverde Creek (central and eastern areas), then continuing east of the property.

From the highest elevation to the lowest elevation, the intervening slope gradients vary from steep mountainsides, to rolling foothills, to flatlands along the Amargosa and Anaverde Creeks. Existing vegetation primarily consists of low brush and wild grasses, in addition to stands of oak, Juniper, Joshua and desert olive trees. Junipers are located along the southwesterly hillsides and Joshua trees are scattered throughout the site. Riparian vegetation occurs within several seeps and springs onsite, as well as along Amargosa Creek just west of the Ritter Ranch entrance at Godde Hill Road, east of the Pine Creek junction and along Elizabeth Lake Road.

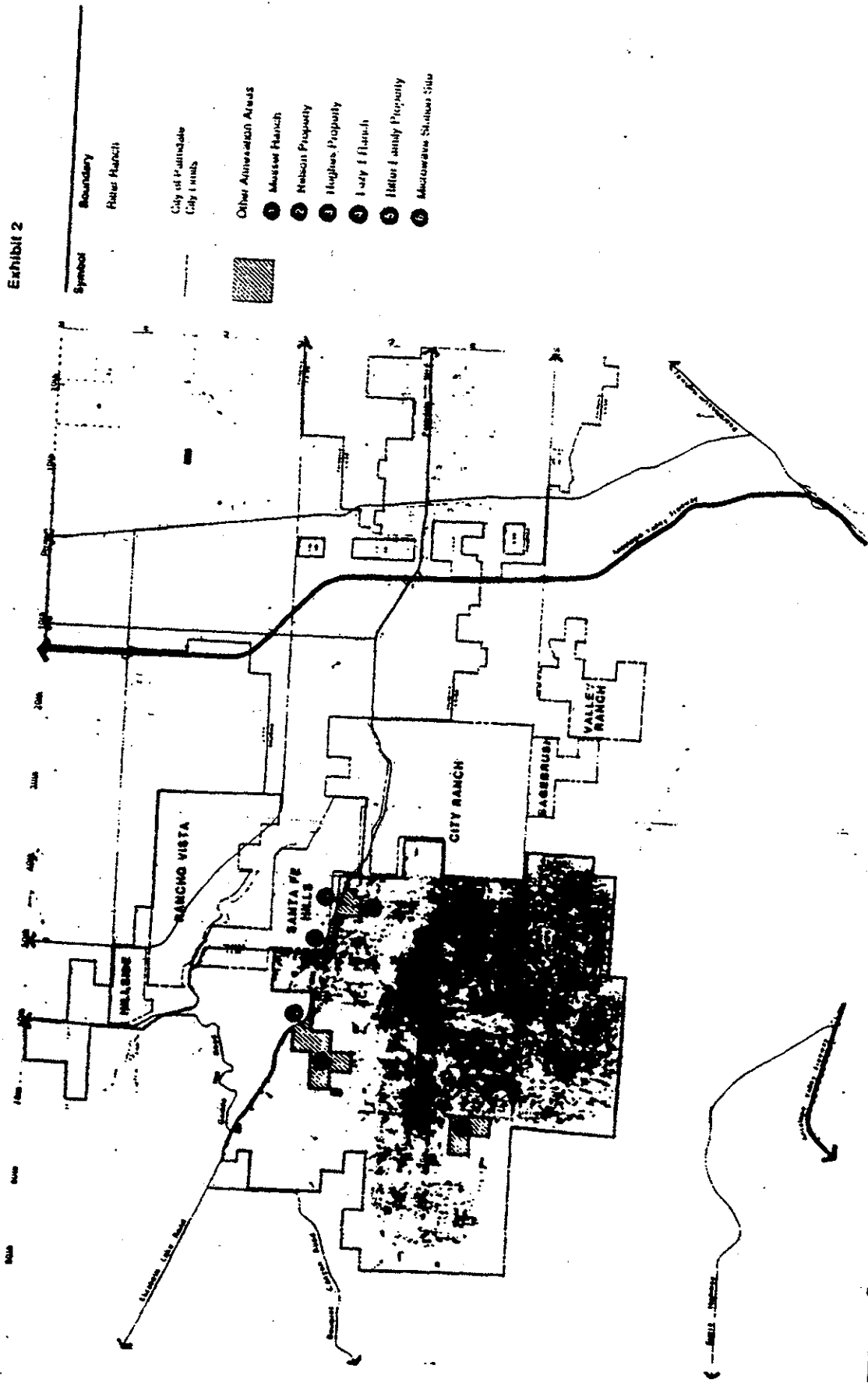
The property is traversed by major overhead electrical transmission lines, telephone cable lines, power pole easements, underground pipelines and a network of jeep roads, trails and cow paths. The jeep roads provide access to mountain ridges and westward to the National Forest, as well as south to the community of Summit. However, the private property is fenced from public access. Other man-made features include six stock ponds and ranch buildings.



AZEKA
DE ALMEDA
PLANNING

Vicinity Map

Exhibit 2



Hilma Ranch Special Plan

erial Photograph



Flater Ranch Specific Plan



The primary existing use of the Ritter Ranch project site area is cattle ranching. While only one ranch is inhabited, limited cattle grazing occurs under lease agreements (cattle operations have been gradually reduced over recent years). Additionally, two mountain ridges, Mt. McDill and Mt. Hauser, are utilized for microwave transmission sites on island parcels which are not a part of the Ritter Ranch, although easements are provided. The Mt. Hauser microwave station is owned and operated by Pacific Bell. The Mt. McDill site is owned by Lockheed Corporation.

The existing zoning for the project site is currently under Los Angeles County jurisdiction. The zoning category for the site consists of A-2-2, which permits heavy agriculture with two acre minimum sized lots.

Other Annexation Areas

Topographically, the annexation areas are an extension of Ritter Ranch, with all but Messer Ranch having relatively steep terrain. Vegetation on these properties consist of Juniper/Joshua Tree Woodland, Desert Scrub, Rabbitbrush Scrub, Annual Grassland, Cottonwood/Willow Riparian Woodland, and Disturbed/Residential. Man-made modifications to the natural topography of the area consist of localized leveling of the ground surface for single-family homes, Messer Ranch and the Lazy-T Ranch adjacent to the Amargosa Creek. Currently, the area is mainly open space. Elizabeth Lake Road is the primary access route for the properties. The microwave station sites are located at the top of the Sierra Pelona ridge (at Mt. McDill and Mt. Hauser), with access provided through dirt jeep trails. The Amargosa Creek impacts the northern portion of the properties as it flows in an easterly direction, adjacent to Elizabeth Lake Road. Also, the San Andreas Rift Zone crosses the northern portion of the area in a west/northwest direction near Elizabeth Lake Road.

C. BACKGROUND AND HISTORY

Previous Ritter Ranch ownership was by the Ritter family. ~~A few vacant remnants of the Ritter Ranch winery, including an old barn and some associated equipment, whose winery still stands on the adjacent Messer Ranch.~~ The vineyards were a product of vine stock brought from Germany by the Ritter family in the 1860's. It is believed that after prohibition began (in the early 1930's), the five Ritter brothers each utilized part of the 360-acre Spanish Land Grant for agricultural purposes. Various crops, grain and alfalfa were grown without much need for irrigation until the 1940's. Livestock were raised from the

earliest days and this use continued through the drier 1940's and 1950's until the present. The ranchers dug six ponds which were fed by springs or wells for watering their stock.

Following the completion of the California aqueduct water project in 1975, which conveys potable water from northern California through the Antelope Valley to the Los Angeles basin and which brings water to within a half mile of the Ritter properties, the Ritter family and others helped organize local water distribution systems based on the new water supply. The aqueduct's provision of potable water has contributed to population growth in the Antelope Valley.

The Ritter family interests were sold by 1957, and the property has since been leased by subsequent ownership primarily for cattle ranching. Part of the property was leased to the Ritter Ranch Sportsman's Club until 1974. Presently, a few ranch artifacts remain, marking the several homesteads that once existed on the property at Anaverde Creek and Amargosa Creek.

In late 1989, Ritter Park Associates submitted a preliminary Specific Plan and associated development applications for annexation into the City of Palmdale. The City prepared an Initial Study for the Ritter Ranch Specific Plan in late October, 1989, and determined that the project would result in significant environmental impacts and therefore requires an EIR. City staff also determined that, together with Ritter Ranch, the 449 acres of Other Annexation Areas would be addressed in the same EIR as part of the City's proposed annexations. In December, 1989, the City retained Robert Bein, William Frost and Associates to prepare the EIR.

Prior to completion of the proposed Ritter Ranch Specific Plan, the applicant had considered several more dense development plans. Initial concepts considered an average one unit per acre plan (approximately 10,000 to 11,000 dwelling units at higher individual area densities). The first Specific Plan submitted to the City in October, 1989 included 8,500 dwelling units and substantially less open space. This October, 1989 plan proposed an exclusive ridgetop estate community along the Sierra Pelonas, served by a mountain road from the lower Ritter Ranch area, across the Sierra Pelonas and south of old Sierra Highway (near Agua Dulce). Although through traffic would have been restricted, this concept was abandoned due to concerns over ridgetop development and traffic flow through the Acton and Agua Dulce communities (at this time the applicant eliminated the southernmost 900 acres of the original 11,500-acre Specific Plan area).

The October, 1989 plan also proposed higher residential densities adjacent to Leona Valley residences. In response to City staff concerns, the applicant revised the Specific Plan to eliminate the ridgetop road and estate homes and provided large estate lots, a golf course and an equestrian center in the western project area adjacent to existing rural Leona Valley residences and an existing equestrian center.

An Initial Study and Notice of Preparation were distributed by the City of Palmdale on December 6, 1989. As noted above, the Specific Plan has been modified and annexation boundaries for adjacent properties were modified.

D. PROJECT CHARACTERISTICS

The proposed project consists of the 10,625-acre Ritter Ranch Specific Plan and approximately 449 acres of Other Annexation Areas (including 309 acres on five small properties and 140 acres on two microwave station sites). The Ritter Ranch Specific Plan includes residential, open space, recreational, school and commercial land uses. The 449 acres of "Other Annexation Areas", although included in the annexation application, are not proposed for development at the time. Table 1, SPECIFIC PLAN STATISTICAL SUMMARY, summarizes the proposed land uses and acreage of the Specific Plan. The Ritter Ranch project includes adoption of a Specific Plan, General Plan Amendment, Annexation Application and Sphere of Influence Amendment prior to project implementation. The Other Annexation Areas will also require a General Plan Amendment and a Pre-Zone to add the parcel to the City General Plan and to the zoning ordinance, respectively, and an Annexation application and Sphere of Influence Amendment. Currently, a City-wide General Plan revision is in process, which will include the Ritter Ranch Specific Plan and the Other Annexation Areas.

Annexation Areas

Several properties south of Elizabeth Lake Road, surrounded by the Ritter Ranch site, will also be annexed to the City of Palmdale. These properties include Messer Ranch, the Hughes, Nelson and Ritter family properties, and the Lazy-T Ranch. The Messer Ranch covers approximately 208 acres and lies approximately midway along the extent of the Ritter Ranch property, south of Elizabeth Lake Road. The property owners have expressed interest in developing the site, however, only conceptual ideas have been discussed with City staff. At present, the site is impacted by the San Andreas Fault Rift Zone and the Amargosa Creek flood hazard zone. Vegetation on the site is similar to that found on the

Table 1

SPECIFIC PLAN STATISTICAL SUMMARY

<u>Proposed General Plan Land Use Designation</u>	<u>Specific Plan Category</u>	<u>Dwelling Units</u>	<u>% Units</u>	<u>Gross Acres</u>	<u>% Total Acres</u>
Residential					
Suburban Residential (1 to 2.0 D/Ac)	Single-family Estate	80	1.1%	221.7	2.1%
Urban Residential (3.1 to 6.1 D/Ac)	Single-family Detached/Attached	6,278	87.2%	2,107.5	19.8%
Urban Medium High Residential (10.1 to 18.0 D/Ac)	Multi-family Residential	348	4.8%	25.5	0.2%
Urban High Residential (18.1 to 26.0 D/Ac)	Multi-family Senior	494	6.9%	22.3	0.2%
Total Residential		7,200 DU	100%	2,377 Acres	22.3%
Neighborhood Commercial	Commercial¹ (8 sites, 692,135 square feet of Gross Leasable Area)			73.1	-0.7%
Open Space	Parks (Community & Neighborhood)			121.6	1.1%
	Open Space ²			7,600.7	71.5%
	Golf Course			184.0	1.7%
Schools	Elementary (5 sites)			34.0	0.3%
	Middle (1 site)			25.0	0.2%
	High School (1 site)			61.6	0.6%
Major Roadways				148.0	1.4%
TOTALS		7,200 DU	100%	+/-10,625 Acres	100%
GROSS AREA DENSITY				0.68 D/Ac	

D = Dwelling Unit

Ac = Acre

Source: Ritter Ranch Specific Plan (August 5, 1991)

¹Includes 7-acre amphitheater in Planning Unit 4I.²Includes Fuel Modification Zones, public facilities and 352 acres in seven "Specialty Parks" (including the 48-acre Equestrian Center).

adjacent portions of Ritter Ranch with the exception of a large almond orchard located on the Messer Ranch site which has not recently been harvested or maintained.

The Nelson property (22 acres) is located next to Messer Ranch and directly fronts Elizabeth Lake Road. At present, the site supports two single-family residences.

The Hughes property, covering 34 acres, is a triangular site bound on the north by Elizabeth Lake Road and on the south and west by Ritter Ranch. The site is severely impacted by the San Andreas Fault Rift Zone and the Amargosa Creek flood hazard zone. Development opportunities on the site are constrained by these factors and by areas of steep terrain.

The Lazy-T Ranch (12 acres) is a horse boarding facility. Several residences are also located at the site. Like the Messer and Hughes properties, Lazy-T Ranch is affected by the San Andreas fault and Amargosa Creek. At present, most of the structures onsite lie within the Creek's flood plain.

Located south of Lazy-T Ranch lies property still controlled by the Ritter family. This site, covering 33 acres, is impacted by the San Andreas fault system.

In addition to these properties, two communications facilities are located atop the Sierra Pelona ridge on Ritter Ranch. These facilities are not a part of the Ritter Ranch project, but will be included in the annexation. Development of these sites, for any use other than placement of communications facilities, is constrained by access.

In the future, should any of these properties be proposed for development, development applications and project specific environmental review will be processed by the City of Palmdale.

A detailed discussion of the proposed Ritter Ranch Specific Plan follows (additional information, including proposed development standards and design guidelines are in the Draft Specific Plan available for review at the City of Palmdale). The Other Annexation Areas are assumed to be built out at one unit per acre (approximately 309 units, as the 140-acre microwave station sites will not be developed), which is a worst-case assumption as the area has relatively substantial topographic and seismic constraints. It should also be noted that future development applications for Ritter Ranch and the other properties within the annexation area (as with Tentative Tract Maps and Conditional Use Permits) will require

further environmental review, with respect to the "project" addressed in this EIR. The Ritter Ranch Specific Plan includes provisions for Specific Plan amendments, a wide variety of permitted and conditionally permitted uses, and for certain plan modifications that can be handled by administrative review (without a public hearing), although any such plan modification is subject to CEQA provisions for further environmental review of potential significant impacts of the plan modification(s). This EIR is based primarily on the Community Concept Plan and statistical summary presented in this section. Furthermore, regional offsite infrastructure improvements required for this and other projects are being addressed as part of the Amargosa Creek Improvement Project Phases I and II environmental review process in progress.

Ritter Ranch Planning Areas

The Ritter Ranch Specific Plan, which encompasses approximately 10,625 acres, is divided into eight Planning Areas (PA) to provide detail and identity. Within each Planning Area are individual Planning Units which define where particular land uses and densities are designated. The Planning Area and Planning Units concept is depicted on Exhibit 4, COMMUNITY CONCEPT PLAN and Table 2, PLANNING AREAS STATISTICAL SUMMARY, and are described as follows:

Planning Area 1 (Golf Course Community). Planning Area 1 (PA 1) is located in the northwest portion of the site within the Leona Valley. The 835-acre Planning Area has been designed to blend with the nearby community of Leona Valley, incorporating open space and large lot density residential uses. Included within this Planning Area is an 18-hole golf course open to the public (184 acres), an equestrian estate community with minimum 2-acre lots (80 dwelling units on 221.7 acres and a 48-acre equestrian center), 875 single-family detached golf course oriented homes, and the 32-acre Amargosa wetland park.

Planning Area 2 (West Highlands). West Highlands (461 acres) is located directly south of Planning Area 1 in the foothills at the base of Mt. McDill. Proposed and designed as a rural community, this is to be composed of 232 single-family detached homes with lot sizes ranging from 8,000 square feet to in excess of 12,000 square feet, a 62-acre high school site, a 24-acre community park site, a fire station, an 8-acre elementary school site and over 200 acres of open space.

Planning Area 3 (North Ridge). North Ridge, located north of Elizabeth Lake Road, this area is proposed as a 180-unit single-family detached suburban residential neighborhood on

Exhibit 3, COMMUNITY CONCEPT PLAN, is currently being revised and will be available at the City of Palmdale Planning Department at a later date.

Table 2

PLANNING AREAS STATISTICAL SUMMARY *

<u>Planning Area</u>	<u>Dwelling Units</u>	<u>Gross Acres</u>	<u>Gross Density</u>
1. Golf Course	955	835	1.1 DU/Ac
2. West Highlands	232	461	0.5 DU/Ac
3. North Ridge	180	159	1.1 DU/Ac
4. Lakeside	599	621	1.0 DU/Ac
5. Ranch Center	2,587	656	4.0 DU/Ac
6. East Highlands	2,647	2,725	1.0 DU/Ac
7. West Ridge	--	2,501	-- DU/Ac
8. East Ridge	--	2,667	-- DU/Ac
TOTALS	7,200	10,625	0.68 DU/Ac

Source: Ritter Ranch Specific Plan (August 5, 1991).

* The transfer of dwelling units between Planning Areas will be allowed in accordance with criteria specified in Section 8 of the Specific Plan.

159 acres, buffered from Elizabeth Lake Road by approximately 83 acres of natural or slightly enhanced open space/passive parkland (the open space area includes portions of the San Andreas Fault Rift Zone and the Flood Insurance Rate Map 100 Year Flood Zone).

Planning Area 4 (Lakeside). The Lakeside Community (621 acres) is located north of Ritter Ranch Road and west of the Ranch Center (Planning Area 5), for which 599 residential units are proposed on minimum 7,000 square foot lots. This single-family residential neighborhood is to be centered around a lake and park area which serves as a destination point for trails within surrounding open space areas. In addition to the Lakeside Park, a 15-acre community park adjacent to an 8-acre elementary school site is proposed. A seven-acre amphitheater site has been proposed off of Ranch Center Drive.

Planning Area 5 (Ranch Center). The Ranch Center is located in the central/eastern portion of the site, adjacent to proposed City Ranch Specific Plan. The architectural theme of the 656-acre Ranch Center is proposed to be oriented towards the traditional village, at which residents of Ritter Ranch may congregate. The residential areas surrounding the commercial core are more intense in density (2,587 total units) to provide a solid population base within a reasonable walking distance. Three multi-family sites totalling 26 acres and a 22-acre multi-family senior's site have been proposed adjacent to commercial uses. There are 215 acres of single-family attached development area proposed. A community park and three neighborhood parks have been located along the powerline easements through Planning Area 5. There is also an 8-acre elementary school site and a 25-acre middle school site proposed in this Planning Area adjacent to neighborhood parks.

Planning Area 6 (East Highlands). The 2,725-acre East Highlands is nestled within the central foothills of Ritter Ranch and is planned for upscale, view-oriented, single-family detached housing (7,000 square foot minimum lots). East Highlands includes 2,647 single-family detached units surrounded by over 1,582 acres of open space. Four 5-acre minimum neighborhood park sites and two 5-acre elementary school sites are proposed within the Planning Area.

Planning Area 7 (West Ridge). West Ridge encompasses approximately 2,501 acres designated as permanent open space which includes portions of the Sierra Pelona ridgeline. The entire Planning Area is intended for passive open space uses such as bicycling, hiking and equestrian trails.

Planning Area 8 (East Ridge). East Ridge encompasses approximately 2,667-acres of permanent open space including portions of the Sierra Pelona ridgeline. Like West Ridge (Planning Area 7), East Ridge is intended for passive open space uses.

Open Space and Recreation

As shown in Exhibit 5, OPEN SPACE AND RECREATION PLAN, approximately 7,601 acres of the 10,625-acre Ritter Ranch site has been designated as open space³ for public use (this includes approximately 352 acres of active/passive use "Specialty Parks", a trail system, and required Fuel Modification Zones, which will vary in width depending on the proximity to structures and fire hazard of adjacent natural vegetation). Major portions of land along Elizabeth Lake Road and between development areas, plus the entire ridge and southern portion of the site, make up the total open space area.

Natural Open Space³. Nearly the entire southern portion of the site, approximately 7,601 acres will be preserved as "natural open space" (primarily within planning areas 7 and 8). The Natural Open space areas include approximately 352 acres of various "Specialty Parks" described below involving active and passive recreation, as well as substantial Fuel Modification Zones wherever developed areas abut existing vegetation. This land also contains existing and proposed trails to be used for such recreational uses as hiking, mountain biking and horseback riding.

Parks. Proposed park sites are divided into three main categories: Neighborhood Parks (approximately 5-12 ~~15~~ acres), Community Parks (~~approximately 15 - 35 acres~~ 40-acres+), and Specialty Parks (~~approximately 10 - 140 acres~~). There will also be various privately maintained "pocket parks", although these are not included in the park acreage.

³NOTE: The Ritter Ranch Specific Plan "Development Standards" (Section 6.9) permits a number of uses within "Open Space", although no such uses have been addressed within the EIR. (City staff will conduct environmental review of proposed open space uses as specific proposals are submitted). These permitted uses, subject to Site Plan Review, include playgrounds, ballfields, community facilities, and agricultural/conservation uses, as well as other more intrusive uses that are subject to a Conditional Use Permit and public hearing, including day care centers, temporary carnivals, country clubs, amphitheatre, fire and/or sheriff station, parking, golf courses and a wastewater treatment facility.





Community and Neighborhood Parks. Totaling approximately 122 gross acres, three (3) community and seven (7) neighborhood parks sites have been identified for active park recreation use (net acreage will depend on final engineering design). This includes 49 gross acres of Neighborhood parks (three in PA 5 and four in PA 6) and 72.1 gross acres of Community Parks (one each in PA 2, 4 and 5). The parks would provide recreational opportunities for the residents of Ritter Ranch and the surrounding community through such proposed active uses as organized/active sport fields, play courts, picnic areas, and playgrounds.

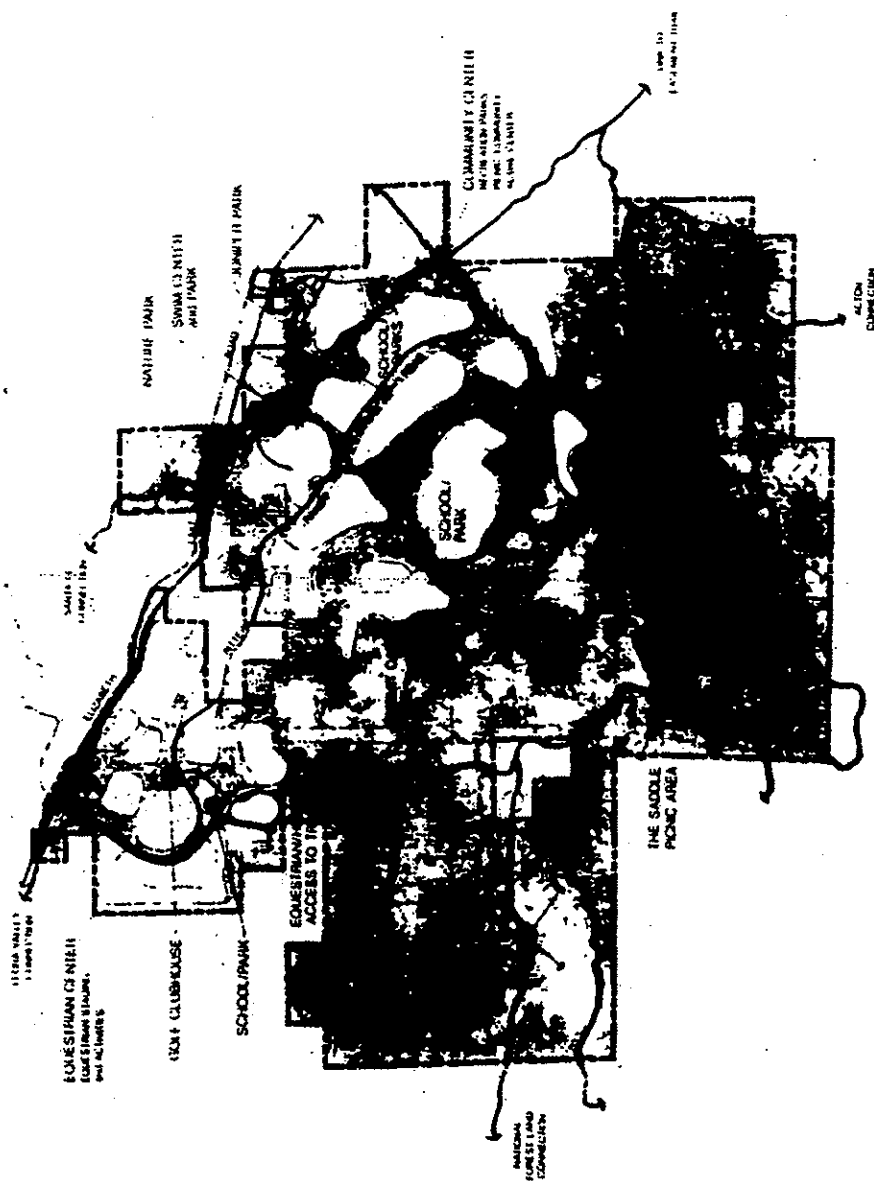
Specialty Parks. In addition to the proposed community/neighborhood park sites, a total of approximately 352 acres of parkland on eight sites have been identified for additional recreational opportunities for the residents of Ritter Ranch. These park sites are "special" in that they typically occupy a unique portion of the site with exceptional vegetation and/or landform quality. With minimum improvement these sites provide an opportunity for programming such additional active uses as play courts, swimming, picnicking, volleyball, playgrounds, hiking, horseback riding, etc.

Specifically, each proposed Specialty Park includes the listed features:

- *Lakeside Park* (SP-1, 12 acres). Located in Planning Unit 4F, Lakeside Park consists of amenities such as a public swim club facility, two lakes (upper and lower) with both body and non-body contact water areas and a dry stream bed/green belt connecting the upper and lower portions of the park. The lakes will also be used to store non potable (raw or reclaimed) water and to provide for stormwater detention.
- *Equestrian Park* (SP-2, 48 acres). Located along the west end of Elizabeth Lake Road (in Planning Unit 1A) near the Leona Valley entry to the site, the Equestrian Park as currently proposed includes a public equestrian center (stables, riding rinks, etc.), equestrian staging area, paseo trail connection and picnic areas.
- *Nature Park* (SP-3, 83 acres). A site (Planning Unit 3B) proposed to remain predominantly in its unique natural condition, it will include limited improvements to accommodate such potential uses as a staging area for the proposed powerline equestrian trail and paseo along Elizabeth Lake Road and the proposed easement equestrian trail. Proposed uses also include picnic and hiking areas.

Exhibit 5

Symbol	Description
	Hand-Made / Hand-Made
	Human Made
	Special Community Features
	Views - Vista



SOURCE: FBI Statistics

Butler Ranch Specific Plan



- *Summit Park* (SP-4, 10 acres). Strategically located on a major panoramic view ridge (Planning Unit 6P), Summit Park is proposed to be a primary regional trail rest area, "day use only" campground and picnic area.
 - *Trail Head Park* (SP-5, 10 acres). Located at the end of McDill Mountain Road (Planning Unit 6T), Trailhead Park is proposed to be the primary hiker staging area for Ritter Ranch and surrounding communities. As proposed, the park improvements include a parking area for 20-30 cars, picnic areas and trail staging area.
 - *Creekside Park* (SP-6, 17 acres). Just below Trail Park and adjacent to McDill Mountain Road, Creekside Park (Planning Unit 6Z) is a linear park that follows the revegetated (with native vegetation) and enhanced Anaverde Creek riparian water course. As proposed, Creekside Park is the primary paseo/trail link from the development areas in PA's 5 and 6 and community center in PA 5 to the backbone trails and natural open space. Additional amenities include picnic areas.
 - *Juniper Park* (SP-7, 139 acres). Located at the northeast portion of the site (Planning Unit 4H), Juniper Park is proposed to remain predominantly in its natural state as a preservation area for the Juniper and Joshua tree vegetation indigenous to the area. In consideration of its vistas along Leona and Anaverde Valleys, a one-acre Visitor Information/Educational Center (maintained by the applicant) is proposed together with natural trails and picnic areas throughout the park.
 - *Amargosa Park* (SP-8, 32 acres). Just east of the proposed Equestrian Park and Center along Elizabeth Lake Road is the passive wetlands park (Planning Unit 1C). Primarily consisting of the Amargosa Creek Riparian watercourse and wetlands area, the wetlands park is proposed to remain mainly in its natural state, with the addition of indigenous native plants to enhance the existing plant community. Limited uses such as nature and equestrian trails and picnic areas are proposed for the site (the area is proposed for a regional detention basin as part of the Amargosa Creek Improvement Project, which is currently in the environmental review process).
- Golf Course.** A professionally designed 18-hole ~~semi-private or public~~ semi-public golf course open to the public, clubhouse, and driving range are proposed for the northwest end of the project, covering approximately 184 acres. Set back from the wetlands park the golf course is interwoven throughout the development area of Planning Area 1.

Trail System. The Ritter Ranch project proposes a spine of planned and existing trails linking development areas, parks and natural open space. Consisting of approximately 85 miles of trails, this extensive trail system provides an opportunity for residents of both Ritter Ranch and the Greater Palmdale area to access regional trails (see Open Space and Recreational Plan exhibits). On a local project scale, the trail system, consisting of walking or biking trails, equestrian, and hiking (off-road bicycling) trails, allows Ritter Ranch residents to walk, hike and ride freely and safely between homes, parks, schools, and natural open space.

Commercial Land Uses

The Ritter Ranch Specific Plan includes approximately 73 gross acres of commercial uses on eight sites which include Planning Areas 1M, 4I, 5A, 5C, 5M, 5N, 5P, and 5S, providing approximately 692,125 square feet of gross leasable area (GLA). Proposed commercial areas are identified in Exhibit 4, COMMUNITY CONCEPT PLAN, and Table 3, PROPOSED COMMERCIAL AREAS. Commercial land uses may include the following: a retail site that will offer basic services, groceries and general amenities for neighboring residential areas, a 7-acre neighborhood amphitheater for public gatherings, office buildings, a restaurant, home improvement center, gas station, theatre, supermarket, department/drug store, community/cultural center which will provide community service facilities for various cultural groups, post office, and church.

Landscaping

The Ritter Ranch Specific Plan includes a Conceptual Landscape Plan indicating special treatment for project entries, streetscapes, revegetated slopes, Fuel Modification Zones, riparian/watercourse vegetation, and residential and commercial landscaping.

Circulation

The Ritter Ranch Specific Plan will require construction of various major and collector internal roadways, as well as participation in construction of offsite road improvements. Internal roadways (all to be constructed by the applicant) include:

- Elizabeth Lake Road (2 to 4 lane in project area, 100-foot ROW)
- Bouquet Canyon Road (4 lanes, 80-foot ROW)
- Ritter Ranch Road/Avenue S extension (2 to 4 lane, 104 to 112-foot ROW)

Table 3

PROPOSED COMMERCIAL AREAS

<u>Planning Unit</u>	<u>Acreage</u> (gross acres)	<u>Square</u> <u>Footage</u>	<u>Proposed Uses</u>
1M	6	52,272 15,682	<ul style="list-style-type: none"> ● Retail Site ● Adjacent Office Space
4I	7	N/A	<ul style="list-style-type: none"> ● Amphitheater (Parking Onsite)
5A	14.5	81,675 32,670	<ul style="list-style-type: none"> ● Farmers Market ● Grocery Store ● Adjacent and Second Story Office Space
5C	4.5	39,204	<ul style="list-style-type: none"> ● Retail/Office
5M	8	87,120 26,136	<ul style="list-style-type: none"> ● Theater or Supermarket ● Dry Cleaners ● Take-Out Restaurants ● Specialty Retail Stores ● Office Space
5N	11	95,832 28,750	<ul style="list-style-type: none"> ● Discount Department Store or Drug Store ● Video Rental ● Take-Out Restaurants ● Adjacent or Second Story Office Space
5P	15.4	134,165 40,249	<ul style="list-style-type: none"> ● Home Improvement Center ● Hardware Store ● Gas Station ● Second Story Office Space
5S	<u>6.7</u>	<u>58,370</u>	<ul style="list-style-type: none"> ● Cultural/Community Center ● Office ● Post Office ● Church ● Gas Station
Total:	73.1 +/-	692,125	

- City Ranch Road/Avenue R extension (2 to 4 lanes, 90-foot ROW)
- Ranch Center Drive - major entry road (2 to 4 lanes, 60 to 110-foot ROW)
- Collector Roads (2 lanes, 64-foot ROW)
- Local Residential Streets (2 lanes, 45 to 60-foot ROW)

Offsite road improvements include Elizabeth Lake Road (2 to 6 lanes, constructed as part of the Amargosa Creek Improvement Project), Avenue S extension, City Ranch Road, Tierra Subida, Godde Hill Road and Rayburn Road. The applicant will fund a pro rata share of these offsite improvements. Please refer to Section IV.I, TRAFFIC AND CIRCULATION, for additional information and to the Ritter Ranch Specific Plan for roadway design details (available for review at the City of Palmdale Planning Department).

Drainage

The primary drainage features and flood control constraints of the Ritter Ranch site are the Amargosa and Anaverde drainage courses, which also include numerous tributary drainages (refer to Section IV.C for a detailed discussion). Downstream peak flows will be required to be maintained or reduced following project buildout. Proposed drainage improvements are intended to minimize disruption of existing natural channels through setbacks and use of natural unlined channels and/or limited channel improvements. The Ritter Ranch Drainage Plan proposes a system of natural and manmade channels to convey storm runoff from upstream southern areas northerly to Amargosa and Anaverde Creeks. The Drainage Plan includes natural channels in steeper areas and improved unlined channels in major floodways of flatter areas, in combination with check dams and debris basins to reduce velocities and sediment/debris loading. Trapezoidal concrete channels and Vertical wall concrete channels (including reinforced concrete box) are used to convey storm runoff through areas proposed for development. In addition to upstream debris basins, the Ritter Ranch Drainage Plan calls for onsite flood control basins to further reduce peak flows (regional onsite and offsite flood control basins are presently being addressed as part of the Amargosa Creek Improvement Project).

Additional Utilities and Services

The Ritter Ranch Specific Plan will include construction of various onsite utilities and services necessary for the development, including water lines, sewer lines, electricity, cable, gas, and telephone lines. The applicant will be required to participate in a Community Facilities District or assessment district to finance the construction of and possible future maintenance of streets, drainage facilities, parks, parkways, trails and other public facilities.

Public Services and Utilities are discussed in detail within Section IV.K of this EIR. In addition, extensive offsite utility improvements will be needed to serve Ritter Ranch and adjacent areas, and are presently being addressed as part of the Amargosa Creek Improvement Project (including improvements from 25th Street West westerly within Elizabeth Lake Road to 1,000 feet west of Godde Hill Road).

Offsite Infrastructure Improvements

In order to mitigate existing flood control hazards and to provide road and utility infrastructure for planned development, the City of Palmdale is proposing regional improvements as part of the "Amargosa Creek Improvement Project" (financed through "Assessment District 90-1"). The regional improvements include Amargosa Creek channelization from Avenue M southwest to 25th Street West and channel, roadway and utility improvements from 20th Street West to 1,000 feet west of Godde Hill Road. The improvements are planned to include construction of five flood control basins along Amargosa Creek, channelization and modification to portions of the creek, widening and realignment of Elizabeth Lake Road, and installation of utility lines within the widened road bed (including water, sewer, stormdrain, electrical, gas, telephone and cable). The combined road and channel width will vary from approximately 120 feet to 280 feet including fill slopes. The road and channel will be constructed mostly on fill, up to 35 feet or more in depth in some places. The Amargosa Creek Improvement Project is presently in the environmental review process.

E. PROJECT OBJECTIVES

The objectives of the Ritter Ranch Specific Plan include:

1. Develop a residential community which includes sufficient commercial development, schools, parks, community facilities and other elements to support the residents of the community.
2. Preserve key habitat areas and physiographic features.
3. Establish a circulation system that meets local and regional transportation needs and accommodates a variety of transportation modes.
4. Providing housing opportunities which meet the needs of a variety of lifestyles with respect to unit type, size and cost.
5. Increase the housing available for groups with special needs.

6. Ensure that public facilities, services and utilities are developed at the time of development.
7. Water supply systems at Ritter Ranch shall meet minimum standards for domestic and emergency supply and quality.
8. All development at Ritter Ranch shall be serviced by sewage disposal systems which are adequately sized to handle expected wastewater flows and designed and maintained to protect the health of residents.
9. Design a master storm drain system that is sensitive to the environment and meets the City's Master Plan of Drainage requirements.
10. Provide for safe efficient flow of storm water.
11. Minimize the impact of utility lines and facilities on streetscapes and surrounding views.
12. Protect the scenic viewsheds both to and from Ritter Ranch.
13. Meet or exceed parkland requirements identified in the Master Parks and Recreation Plan.
14. Develop and actively promote a higher level of environmental sensitivity through state, regional and local efforts to preserve and protect the environment.
15. Minimize impacts to the natural environment.
16. Provide open space areas for conservation, recreation, leisure and aesthetic purposes.
17. Promote the identification and preservation of historic and prehistoric resources at Ritter Ranch.
18. Preserve the Sierra Pelona ridgeline.
19. Ensure that manufactured slopebanks are effectively revegetated.
19. Ensure that a reasonably quiet living environment be provided for all residential neighborhoods.
20. Minimize the ambient noise level at Ritter Ranch to the maximum extent practical.
21. Development shall incorporate measures to minimize natural and man-made hazards.
22. Restrict development in hazardous or unstable areas including fault hazard restricted use zones.

F. PHASING

Ritter Ranch Specific Plan is proposed to be developed in four phases over approximately a 20-year buildout (see Exhibit 6, PHASING PLAN). The Phasing Plan is designed so that development of Ritter Ranch occurs in a logical manner providing adequate infrastructure and other required physical improvements to service the Ritter Ranch development during and after project buildout. It is expected that completion of a given phase may overlap with the initialization of a subsequent phase. Infrastructure will be required to be in place to adequately serve each phase. Phasing of certain items (such as schools, parks and infrastructure) may be negotiated in a Development Agreement.

G. AGREEMENTS, PERMITS AND APPROVALS

Several agreements, permits and approvals will be required as a part of the proposed project. Following distribution of the draft EIR, a 45-day public review period is provided for public comment, in accordance with CEQA. At the end of the review period, the project will be heard by the City of Palmdale Planning Commission at a public hearing and a recommendation will be made to the City Council by the Planning Commission. The Palmdale City Council will then hold a public hearing and make a determination regarding the adequacy of the Final EIR.

The Final EIR will include the Draft EIR (with revisions, if necessary) as well as comments received during the review period and responses to those comments. Following a determination that the Final EIR is adequate and certification of the Final EIR by the City Council, a Notice of Determination will be issued by the City should the project be approved.

The following is a list of responsible agencies and the associated approvals and permits anticipated to be required for the proposed project for which this EIR may be used.

Responsible Agency

Approval/Permit

Approvals Addressed in EIR

City of Palmdale Planning Commission
City of Palmdale City Council

- Recommendation to the City Council
- Final EIR Certification
- Adoption of Specific Plan/
Pre-Zoning

Responsible Agency**Approval/Permit**

Local Agency Formation Commission

- Annexation/General Plan Amendment
- Development Agreement
- Possible formation of a Community Facilities District
- Annexation/Sphere of Influence Amendment

Future Permits/Approvals

U.S. Army Corps. of Engineers
California Dept. of Fish and Game
Regional Water Quality Control Board

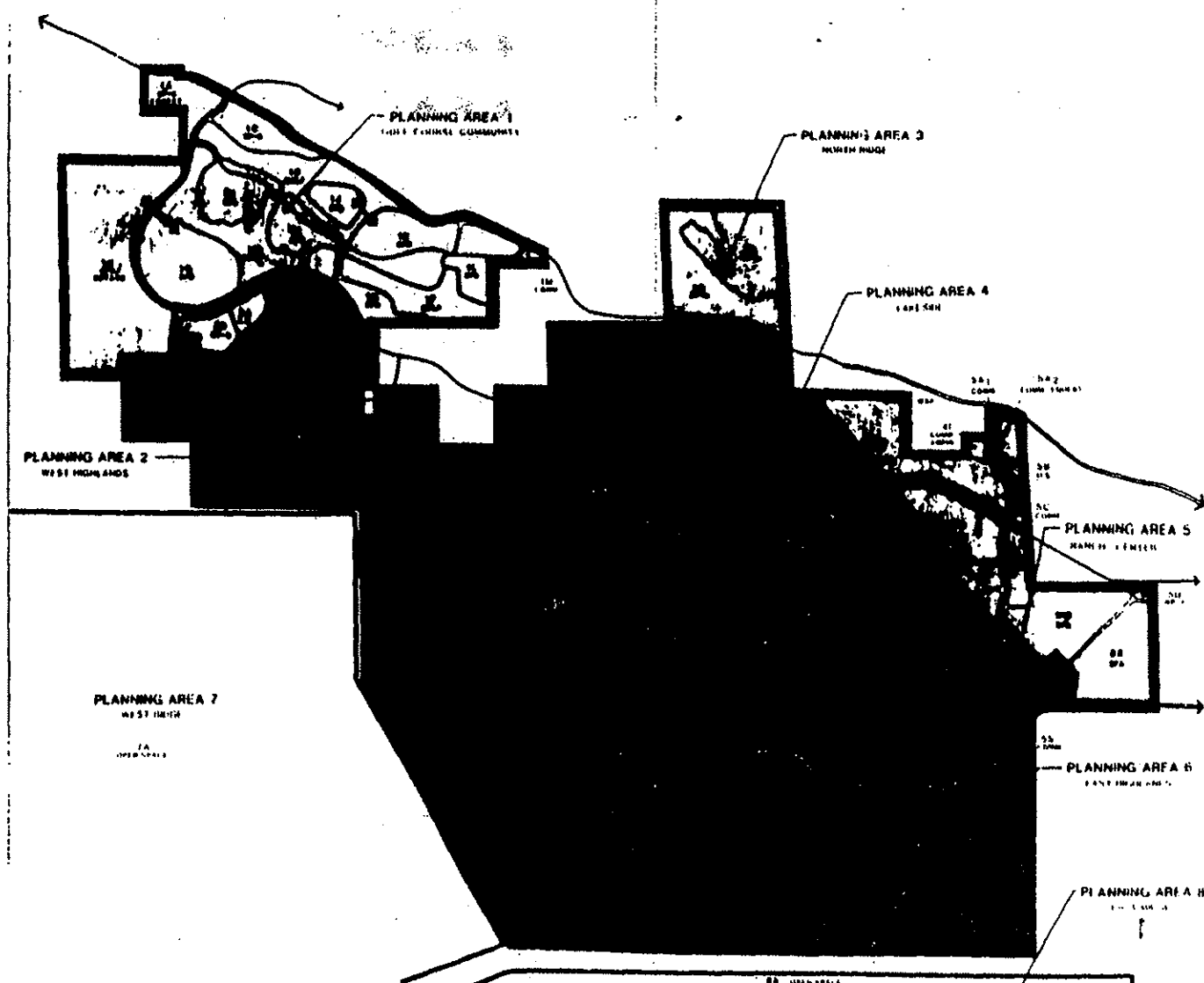
City Planning Commission

Planning Department
City Engineering Department

City Engineering Department

- 404 Permit
- 1603 Agreement
- Wastewater Reclamation Plant (Waste Discharge Permit)
- Subdivision Maps
- Conditional Use Permits
- Variances
- Site Plans
- Grading Permits/Public Infrastructure
- Offsite Improvements/Onsite Improvements (i.e., street sections, utility sections, etc.)

In addition to the above, the project will require public services and utilities. Accordingly, developers will pay mitigation fees and/or construct facilities and negotiate agreements with the utilities and service agencies as required. This will include assessment fees for water and sewer services. Additional fees and/or construction of facilities will be required for fire/police protection services and schools.



River Ranch Specific Plan

IV. DESCRIPTION OF ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

IV. DESCRIPTION OF ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

A. EARTH RESOURCES

Information in this section for the Ritter Ranch Specific Plan area was obtained from the Preliminary Geotechnical Investigation prepared by Buena Engineers, Inc. in November, 1989. The report is included in Appendix B of this EIR. (Note: The appendices of the Buena Engineers, Inc. study are available for viewing at the City of Palmdale.)

EXISTING CONDITIONS

The approximately 10,625-acre Ritter Ranch project area and adjacent annexation areas are located within and adjacent to the Sierra Pelona Mountains in Southern California. The Sierra Pelona is a part of the Transverse Mountain Ranges which extend in a northeast-southwest direction across much of Southern California.

Topography

Topographically, the approximately 10,625-acre Ritter Ranch area can be divided into two distinct geomorphic regions. The central and southern portions of the site are part of the Sierra Pelona which in this area is comprised of two dominant east-west trending ridges. McDill ridge in the west portion of the property rises to 5,187 feet above mean sea level (msl) at Mount McDill. Hauser Ridge rises to 5,217 feet msl at Odell Peak and is located southeast of McDill Ridge. The steep mountain slopes are characterized by deeply incised drainage courses which direct seasonal runoff towards the north (across the Project) and south. A major well-defined valley, Anaverde Valley, extends from the central portion of the property toward the northeast between McDill and Hauser Ridges. This watershed is the primary source of runoff for Anaverde Creek.

The northwest portion of the site consists of gently sloping younger alluvial fan surfaces. The fans have relatively uniform topographic expression except where disrupted by local faulting. Intervening moderately to severely dissected (steep, narrow, and heavily eroded) drainage courses direct runoff to the north and northeast. The fan slopes are relatively flat or gently sloping to the north or northeast. The Amargosa Creek drainage course trends west to east

along the northern portion of the site in this area. The annexation areas along Elizabeth Lake Road, fall within this region.

A low hilly region separates the northwest and northeast portions of the site. Hillsides in this area vary from gently sloping to steep with near vertical slopes along the incised drainage courses.

Approximately forty percent of the Ritter Ranch property has a natural gradient of less than twenty-five percent (refer to Exhibit 7, SLOPE ANALYSIS). The following is a slope analysis of the Ritter Ranch site¹:

<u>Slope</u>	<u>No. of Acres</u>	<u>Percent of Site</u>
0-15%	2,309	21.73
15-25%	1,937	18.23
25-50%	3,915	36.85
50% +	<u>2,464</u>	<u>23.19</u>
	10,625	100.00%

Geology

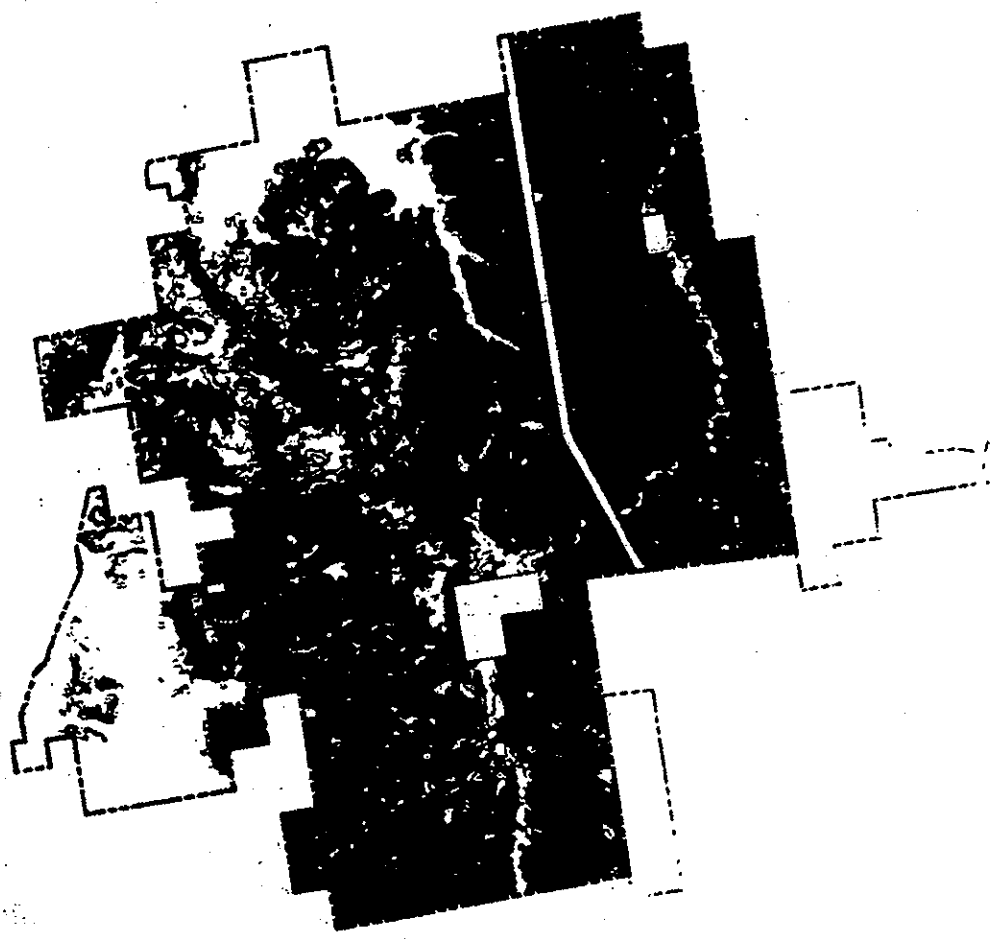
Onsite geologic units (types of bedrock material formed at different times under varying conditions) for the approximately 10,625-acre Ritter Ranch Specific Plan Area consists of Pre-Tertiary Pelona and Portal schist (older than 54 million years), Pre-Tertiary granitic rocks, Tertiary sedimentary rocks (54 million to 2 million years old) and Quaternary alluvial deposits (2 million years old to recently deposited). The Other Annexation Areas have similar geologic features. Descriptions of the units found onsite follow (also refer to Exhibit 8, GEOLOGY MAP):

Pre-Tertiary Pelona Schist (pls). The Pelona Schist is the most common unit on the site. The Pelona Schist bedrock varies in color, with black, red, white greenish gray, and brown schists. The rock is well foliated (layered) and is highly folded and contorted (from past seismic activity). Foliation attitudes (angles of bedrock layers) vary greatly in short distances due to the intense folding. The surface material is typically moderately to severely weathered and is classified as soft to moderately hard rock. It is exposed in the higher ele-

¹Ritter Ranch Specific Plan, January 22, 1991 (page 3-4).

Slope Analysis

Symbol	Slope Category
	10% (flat) 15% slopes
	15% 25% slopes
	25% 50% slopes
	50% slopes



Rutter Ranch Specific Plan



A high-contrast, black and white photograph of a large, dark, irregularly shaped object, possibly a piece of debris or a large rock, with a lighter, textured area on the left side. The object is set against a white background.



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Summer Ranch Specific Plan

vations of the site, especially on the ridges. Based upon mapping and aerial photograph review, the steeper hillsides where the schist is exposed may be prone to landsliding.

Pre-Tertiary Portal Schist (pos). The Portal Schist is similar in lithology (rock composition) to the Pelona Schist, however it occurs north of the San Andreas Fault. It is exposed in the northeast part of the site, on Ritter Ridge. Previous experience indicates that material existing within clay zones in the Portal or Pelona schists may have a "medium" or higher expansion potential.

Pre-Tertiary Granitic Rocks (gr). The granitic rocks consist of light tan to white, moderately to completely weathered, fine to medium-grained material. The granitic rock is typically highly jointed and fractured, especially adjacent to faults.

Tertiary Anaverde Formation. The Anaverde Formation units, which are located in the northeast part of the site, are generally found adjacent to the San Andreas Fault. Several members of this Pliocene sedimentary formation occur on the site including the gray arkose (Tag), the clay shale (Tac), the buff arkose (Tab), and the red arkose (Tar). The shale units typically are folded and contorted, whereas the more resistant sandstone beds are more fractured and jointed. The red arkose is the predominant member onsite. Structurally, the formation is intensely folded and faulted. Previous experience indicates that material existing within the clay shale of the Anaverde Formation may have a "medium" or higher expansion potential.

Tertiary/Quaternary Ritter Formation (TQr). The Ritter Formation consists mostly of sandstones and is moderately to highly weathered and friable (a grainy rock which crumbles easily into smaller particles). The Ritter Formation is located in the northern part of the site, north of the Powerline and San Francisco faults.

Quaternary Harold Formation (Qh). The Harold Formation on this site consists of clayey silt, silty sand, sandy gravel, and sandy silt with clay. The Harold Formation is characterized by light brown to gray colors with abundant calcium carbonate coatings (white chalky material) and cemented fracture zones. The Harold Formation is encountered near the San Andreas Fault, in the northern portion of the site.

Quaternary Nadeau Gravel (Qn). The Nadeau Gravel consists of gravel ranging from small pebbles to boulders in a variably cemented, reddish brown to brown, clayey sand matrix.

The Nadeau Gravel is usually found on ridge tops within and adjacent to the main San Andreas Fault zone.

Quaternary Older Fan Deposits (Qof). The older fan deposits consist of reddish brown, clayey sand with gravel to sandy gravel. These deposits are very similar to the Nadeau Gravel, and may be related. However they are generally topographically lower and are located north of the San Francisquito fault in the northwest part of the site.

Quaternary Older Alluvium (Qoa). The older alluvium consists of a reddish to yellowish brown, clayey sand and silty sand with gravel. On the site, older alluvium is located primarily in the lower, flatter area in the northern half of the property. Smaller isolated older alluvium deposits are located at various elevations in the higher areas of the site.

Holocene Younger Alluvium. The younger alluvium consists of unconsolidated fluvial (river) sands, silts, and gravels deposited by relatively recent depositional processes. The younger alluvium is typically moderate yellowish brown, ranging from slightly silty to clayey fine to mediums sand to sandy silts, and gravelly sands. Three younger alluvial soils have been identified as follows: Undifferentiated younger alluvium (Qal) consists of unconsolidated sediments in the lower elevations of the site; Quaternary younger fan deposits (Qf) consists of unconsolidated sediments in the lower elevations of the site, at the mouths of steep canyons; and Quaternary ponded alluvium (Qpa) consists of unconsolidated silts, sands, and gravel deposited in closed depressions resulting from local fault movement.

Quaternary Slopewash Deposits (Qsw). Slopewash deposits consist of unconsolidated sand, gravel and silt that cover most of the slope areas of the site. The slopewash drapes over or intermingles with the alluvial deposits found beyond the base of the hillsides.

Quaternary Landslide Deposits (Qls). Landslide deposits on the site consist of disturbed bedrock and surficial deposits. Landslides were mapped by geomorphic evidence obtained primarily from aerial photographs. The potential for landslides to affect the approximately 10,625-acre project area is moderate to high in the area of the proposed mountain road alignment, along the west end of Hauser Ridge.

Artificial Fill (af). The fill deposits consist of locally derived sand, silt and gravel used for construction of roads, drainage berms, and the onsite dam. Most of the roadfills are anticipated to be poorly compacted. It is our understanding that the onsite dam has been

constructed with a compacted soil-cement mixture. Localized deposits of trash and debris were observed on the property.

Mineral Resources. Mineral production on the site has been limited and only within the Pelona Schist. The prospects consist of small, dozer-cut pits and trenches. The most extensive workings occur at the southeast end of McDill Ridge. Quartz veins were prospected for gold in a limited area on the northern flank of McDill Ridge, and consists of scattered, small pits. Gold production from this one-man operation is believed to have been small. An old, abandoned shaft approximately 20 feet deep is located at the northeast corner of McDill Ridge.

Groundwater Conditions

Free groundwater was encountered on the Ritter Ranch site with the highest groundwater depth approximately 14 feet below the existing ground surface. It is anticipated that high groundwater conditions will occur within the Amargosa and Anaverde Creek drainages, especially during periods of seasonal runoff. Numerous springs exist on the site, especially in the hillside areas of the Sierra Pelona. Spring occurrence most likely is related to landslides, local faulting, or occurrence of resistance beds within the schist. A major spring, apparently related to the Leona Avenue Fault, flows into the stock pond behind the large onsite dam. Many of the springs throughout the site have been modified to provide water for cattle. Where water flow was observed, it appeared to be less than one gallon per minute.

Several irrigation wells have been drilled on the Ritter Ranch property, primarily in the northern portion. Groundwater conditions encountered in these wells vary widely due to the varied geologic conditions caused by faulting that has occurred onsite. The best producing wells are reported to have yields of 100 gallons per minute. In general, fluctuation in groundwater levels may occur due to variations in rainfall, temperature, and other factors.

The potential for introduction of irrigation water onto hillsides or graded slopes is high. Due to the different permeability characteristics of the bedrock and alluvium, it is assumed that seepage can occur along bedrock/alluvium contacts. In addition, portions of the older alluvium contain high clay contents and are also relatively impermeable. Seepage along younger alluvium/older alluvium contacts or fill/older alluvium contacts might also occur.

The majority of the observed soils encountered below the water table consist of fine-grained soils. These soils contain sufficient cohesive strength to resist grain movement. Therefore, due to the cohesive nature of the soils encountered below the water table, the potential for liquefaction of the Ritter Ranch Specific Plan site is considered low.

Seismicity

As stated previously, the Ritter Ranch property is located within and adjacent to the Sierra Pelona Mountains in Southern California. North and northeast of the Sierra Pelona is the Mohave Desert. The San Andreas Rift Zone divides the Sierra Pelona from the Mohave Desert.




Several preliminary zones of fault hazard "Restricted Use" areas have been delineated (refer to Exhibit 9, FAULT HAZARDS - RESTRICTED USE AREAS). "Restricted Use" areas are those areas where known active or potentially active faults have been identified and where the potential for future fault rupture is considered moderate to high. The zones encompass the San Andreas, Leona Avenue, Powerline Thrust, and San Francisquito Fault zones. Fault hazard "Restricted Use" areas are those areas including 100± feet setback from the identified fault zone or trace.

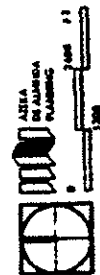
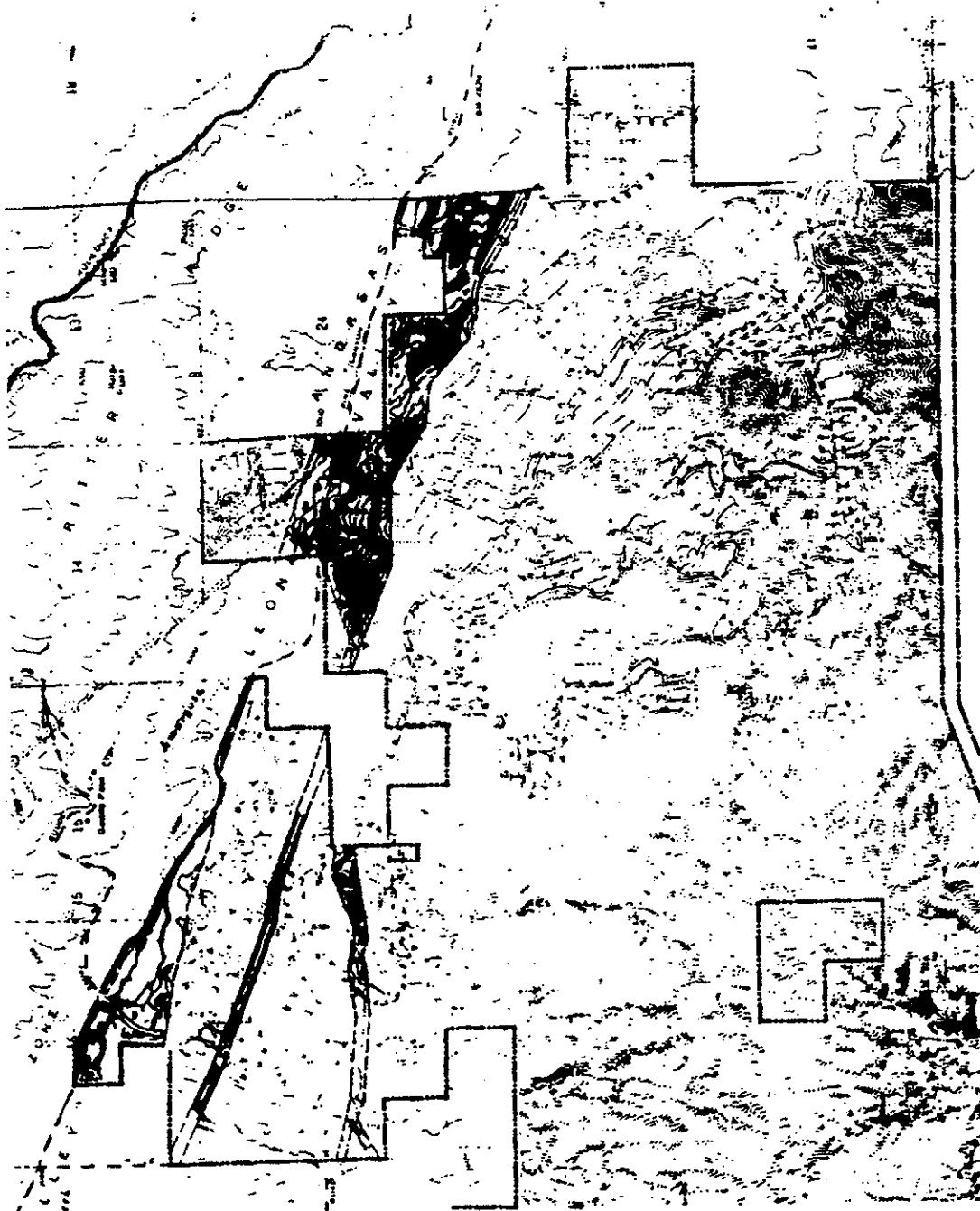
The San Andreas Rift Zone in the Antelope Valley area is comprised of several active and potentially active faults. Onsite, known faults include the San Andreas, Powerline Thrust, Leona Avenue, San Francisquito and several other unnamed fault splays. The Rift Zone is located in the northern portion of the property as delineated on Exhibit 9. The local trace of the San Andreas Fault is considered to be active with the last fault movement and earthquake occurring in 1857. This fault has numerous noticeable features such as aligned ridges and valleys, and offset drainages. The San Andreas rift zone contains a number of fault traces and is up to 2,000 feet wide in areas. The main fault traces are easily identified on the surface and aerial photographs by the closed depressions, linear ridges, narrow troughs and aligned topographic saddles on ridges (refer to Fault Map Exhibit within Appendix B of this document). The nearby secondary or subsidiary faults, including the Powerline Thrust, Leona Avenue and San Francisquito Faults are considered to be potentially active.

The Ritter Ranch site and 309-acre portion of the Other Annexation Areas fall within an active portion of the San Andreas Fault. The main pressure ridge associated with more recent (or Holocene) activity is located immediately north of City Ranch Road and

Fault Hazards – Restricted Use Areas

Exhibit 9

Symbol	Description
	Mineral Use Area
	Special Use Area
	Highway Area



Ritter Ranch Specific Plan

Elizabeth Lake Road, east of the site, where the shale and sandstone units of the Anaverde Formation have been intensely folded and faulted. South of Elizabeth Lake Road, there appears to be a relatively stable geomorphic province where gently sloping alluvial fans have been deposited and later disturbed by the Leona Avenue and San Francisquito Faults.

North of the site the San Andreas Fault has a prominent north branch, located approximately 400 to 800 feet north of the main trace of the San Andreas Fault. The north branch is considered to be active due to its obvious geomorphic expression and apparent displacement during the 1857 Fort Tejon earthquake. The north branch of the San Andreas Fault trends through the northeast portion of the property north of Elizabeth Lake Road (Planning Area 3). The Leona Avenue fault is subsidiary to the San Andreas Fault. It traverses through the northwest portion of the site.

The San Francisquito fault is a significant regional, west-trending fault that converges with the San Andreas Fault at and in the vicinity of the northern portion of the site. It is observed to have a number of branches that offset older fan deposits, and a main branch that offsets older alluvium. At the eastern end of the fault zone, there is a south-dipping Thrust fault on the north-facing slope, where the Pelona Schist has been faulted over granitic rocks. It is possible that this fault is an extension of the Powerline Thrust Fault from the west.

The Powerline Thrust Fault is located on the north-facing slopes at the northeast margin of the site. It is a south-dipping fault, and has displaced Pelona Schist over the Ritter Formation. Recency of activity of the fault is not clear; however apparently undisturbed alluvium was observed approximately 200 feet south of the fault. These deposits were apparently undisturbed. Subsidiary movements on this fault may be anticipated in a major event on the San Andreas Fault due to its proximity.

Other major faults that may influence seismicity on the Ritter Ranch project area include the Nadeau, Cemetery, Little Rock, Hitchbrook, Green Ranch, Vasquez Canyon, Agua Dulce, Mint Canyon, Soledad and Magic Mountain faults. These faults are believed to be capable of producing maximum magnitude earthquakes in the range of M6.5 to M7.5. The maximum magnitude earthquake on the San Andreas Fault in the vicinity of the project site is commonly reported to be M8.25.

Slope Stability

The existing hillsides in and around the Specific Plan site, especially within the Sierra Pelona, show evidence of gross and surficial slope instability. Slope failures on roadcuts and on the steep slopes of the hillsides were observed. During exploration of the southern portion of the site within the Pelona Schist, it became apparent that the schist is highly contorted or folded and contains abundant foliation shears, gouge zones, and internal faults. The distortion and zones of weakness are believed to be related to past structural deformation due to uplift of the Sierra Pelona. While most bedrock slopes in the primary development area (the northeast portion of the site where the majority of development is proposed) and secondary development areas (the northwest portion of the site where approximately 1,200 single-family residential units are proposed) of the site appear to be stable under present slope configurations, alterations from mass grading could significantly affect the local slope stability around the proposed cuts.

Landslides on the Ritter Ranch property were located by review of aerial photographs and field observation. They range in size from several thousand square feet to small pop-out type failures along roadcuts. Some of the larger landslides were mapped on the basis of geomorphic evidence and may actually be related to old erosional terraces. Landslide materials consists primarily of disturbed bedrock, and may contain large intact blocks. The large landslides, in general, appear to be ancient, and have a thick accumulation of slopewash in scarp areas.

Some of the largest landslides occur in the area of the proposed mountain road alignment, along the west end of Hauser Ridge. These slides appear to be ancient and exhibit no evidence of recent movement. Several smaller landslides existing on the southwest slopes of Hauser Ridge will affect the construction of the proposed mountain road.

On the Ritter Ranch property, it appears that the potential for debris flow ranges from minor to extreme, with the greater potential in and adjacent to the higher and steeper terrain. Evidence of debris flows has been observed on the site. Many of the larger debris flow deposits have been mapped either as landslides or slopewash. Existing roadcuts on the site commonly have a mantle of slopewash. Youthful-looking debris flow scars in slopewash deposits were observed in the lower hills in the northeast area of the project site.

IMPACTS

Topography

Significant modification of the existing topography will occur during grading for the proposed development. Roughly 30% of the total Ritter Ranch area will be graded for roadways and development lots. These modifications are expected to consist mostly of earthwork excavation involving removal of unsuitable soils in the low-lying areas (particularly within drainages) and replacing with compacted fill to establish new designed grades. Although detailed grading plans were not available at the time of this study, grading for the project will create numerous cut and fill slopes throughout the project area and will raise the elevation of the ground in some areas and lower it in others. Maximum height of cut and depth of fill is estimated to exceed 70 feet in locally topographically varied areas, particularly on the hilltop residential developments of Planning Area 6 (the Specific Plan grading standards permit up to a 135-foot high slope bank with higher cut slopes permitted for roads, schools, parks, flood control and "perimeter canyon fills"). Most of the natural surface water drainages within development areas would be filled or substantially modified with construction of the proposed development (including Pine Creek, Ritter Canyon Creek and Anaverde Creek). The total amount of cut required for the Ritter Ranch Specific Plan is estimated at 50 million cubic yards (approximately 3.3 million cubic yards or "CY", for PA1; 2.8 million CY for PA2; 1.0 million CY for PA3; 6.2 million CY in PA4; 5.2 million CY in PA5; 30 million CY in PA6 and relatively minor grading in PA7 and PA8 for recreation features). Total cut and fill will be balanced onsite.

The project has been designed to reduce impacts to existing topography by avoiding encroachment into natural drainages, where possible, and by clustering development to retain large areas of open space. In addition, street grades in hillside areas may be increased to allow more sensitive roadway grading, and reinforced slope banks may be used to reduce fill slope length. However, significant grading may occur within portions of natural drainage courses, over most of the more gently sloped areas, and portions of the lower foothills in Planning Areas 2, 3, 4, 5 and 6. A low foothill centered in Planning Area 6 located at the base of the Sierra Pelonas (high point approximately 4,250 feet msl) will be graded for residential uses (also see Section IV.F, AESTHETICS/LIGHT AND GLARE). Low hills within Planning Area 1 will also be graded. The estate lots, equestrian center and golf course community along 80th Street West (Bouquet Canyon Road) will have relatively minimal grading (although in Planning Units 1C and 1D, the Amargosa Creek regional detention basin/wetland park/golf course area would require significant excavation,

impacting the existing wetlands). The middle school (PA5I) and high school (PA2C) will require significant cut slopes and fills due to provision of a large relatively flat surface.

Geology

The project area is not anticipated to be subject to significant hazards from settlement, slippage, or landslides provided the recommendations of the geology studies in Appendix B, and subsequent design reports are properly incorporated into site development, grading, structural design, and construction (refer to Exhibits 10a-10e, which indicate approximate locations of Ritter Ranch geologic constraints). The proposed improvements and anticipated site grading are not expected to adversely affect the geological stability of the sites or adjacent properties provided the recommended mitigation measures are incorporated into site development and improvements are properly designed and constructed.

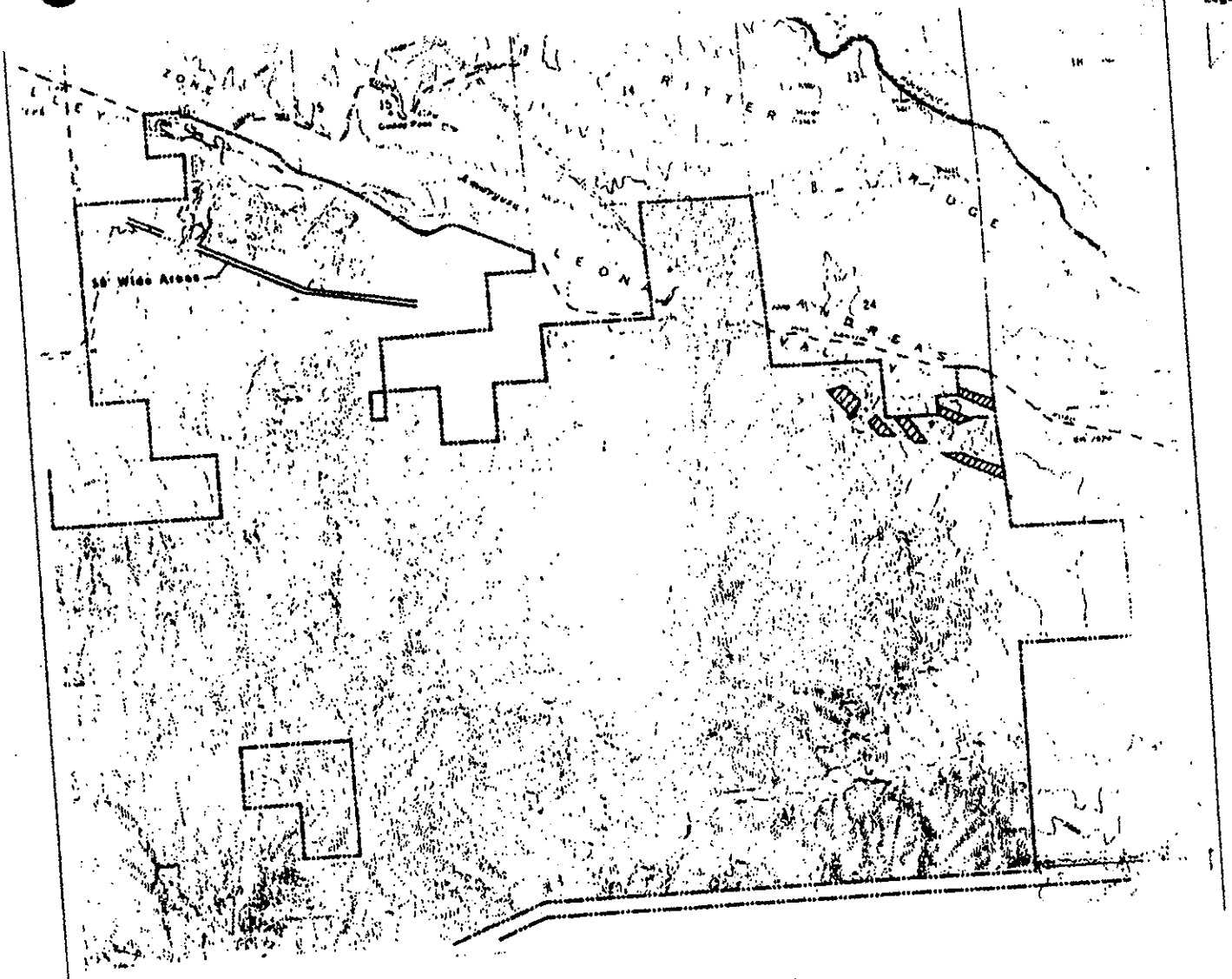
Landslides on natural or graded slopes may be a significant safety hazard to portions of the proposed development and the people attracted into the affected areas. Site specific review of the proposed cut slopes in bedrock areas will be required to mitigate potential impacts to less than significant levels.

Debris flow hazards range from minor to extreme. Portions of the site are susceptible to significant flooding and erosion due to heavy rainfall and runoff. During site preparation, debris flow from potentially heavy rainfall and runoff may increase due to grading and construction activities. Appropriate project design, site grading, construction, and maintenance should adequately mitigate the debris flow and flood hazards.

Project construction and grading activities would expose bare soils to increased wind and water erosion. However, these adverse impacts would be short-term and restricted to initial construction related activities, and are not considered significant with implementation of required mitigation measures.

Cut and fill slopes should be stable provided they are designed and constructed in accordance with recommended mitigation measures and Chapter 70 of the Los Angeles County Building Code. Bedrock cuts will require slope design that accommodates the local foliation, joints, or bedding at the location of the proposed cut. Road fills proposed for the mountain road along the southern flank of the Sierra Pelona may require special design utilizing geosynthetic reinforcement for final slope configurations steeper than 2:1 (hori-

Legend



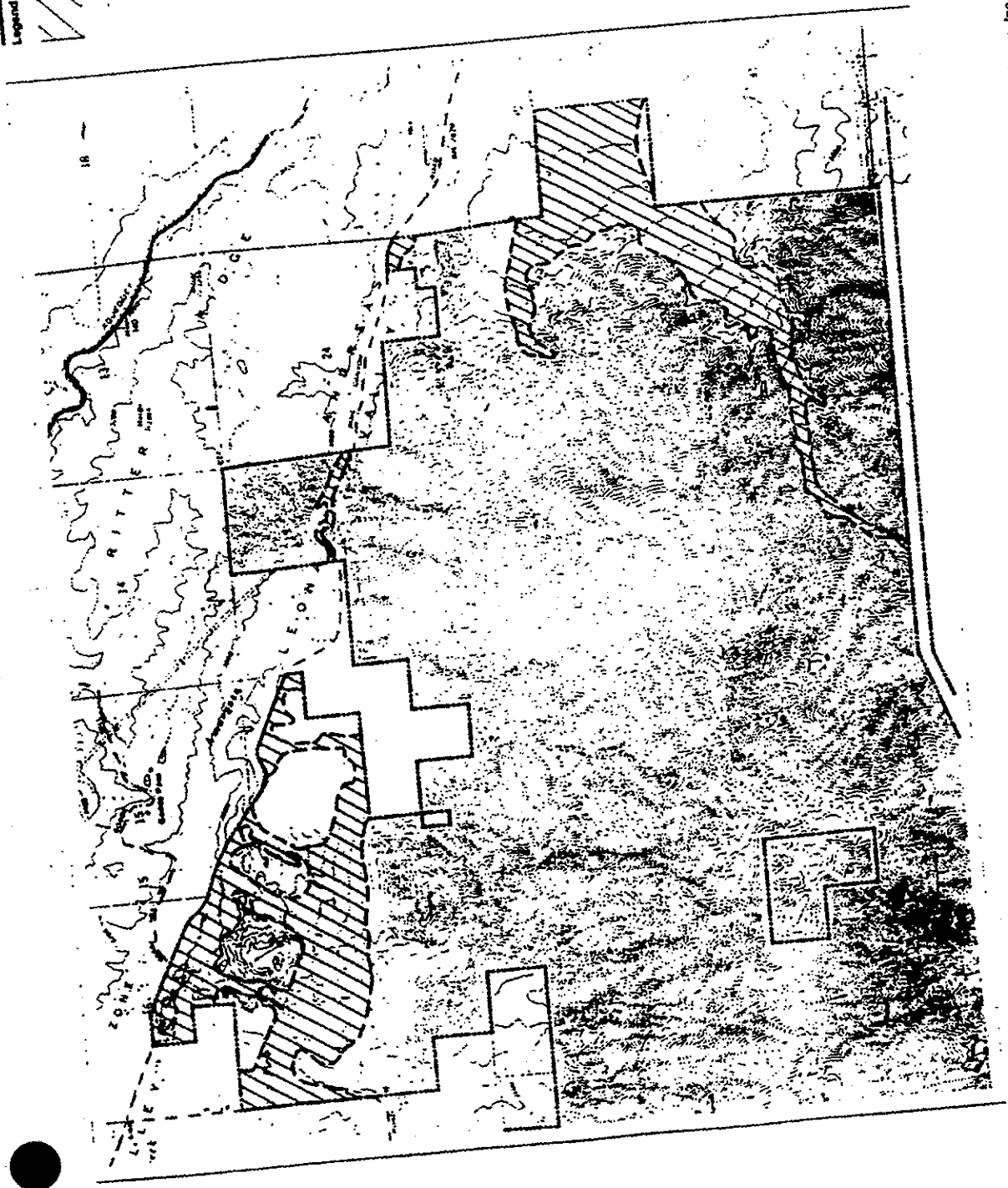
Rifter Ranch Specific Plan

Source: Buena Engineers, Inc.

Liquefaction Potential and High Groundwater Areas

Area where shallow groundwater may exist within 30' of the existing ground surface and where there may be a low liquefaction potential.

Legend



Pillar Ranch Specific Plan

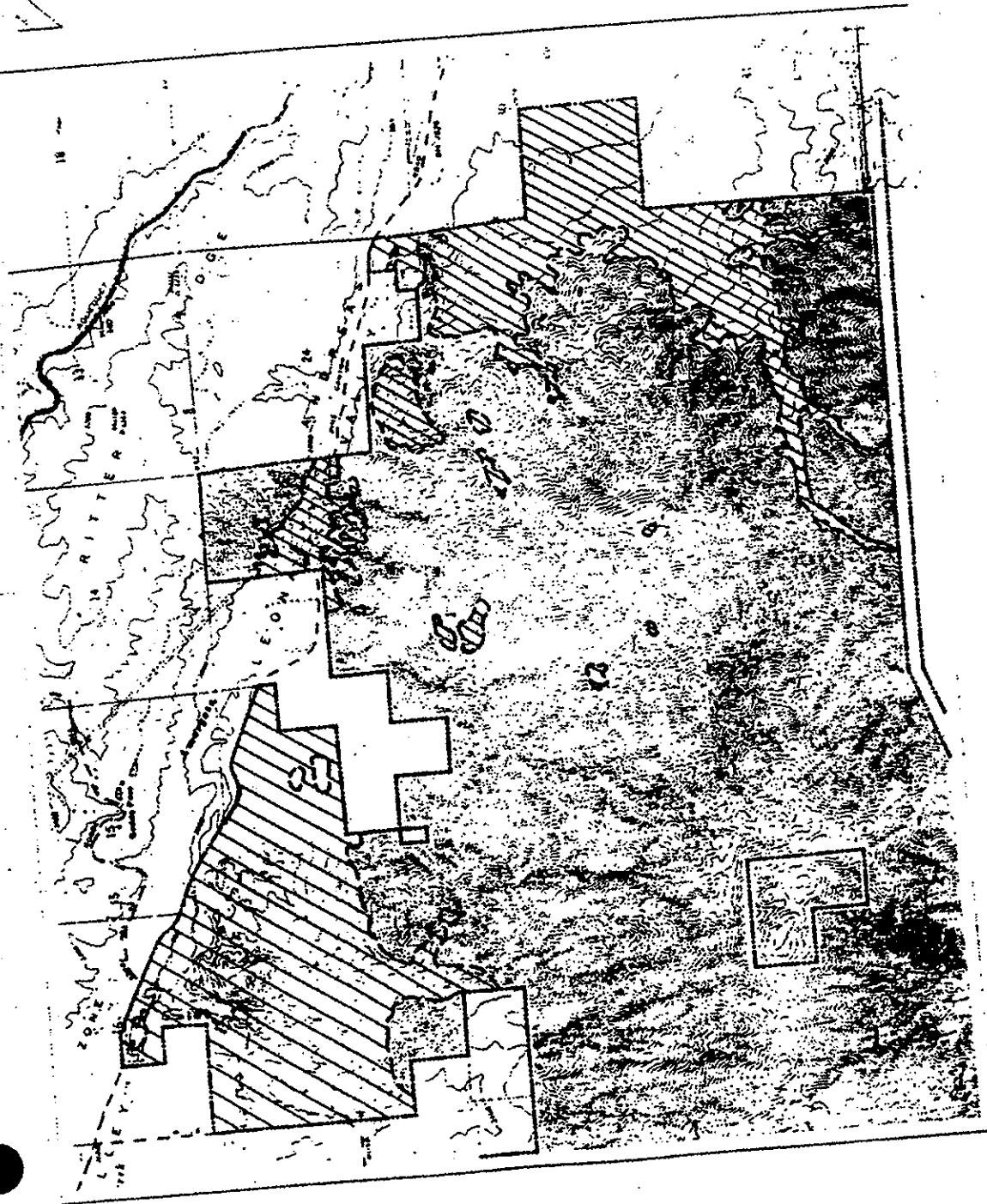
Source: Buena Engineers, Inc.

Potential Hydroconsolidation Areas

EXTENSION 100

Area of site where shallow younger and older soils subject to hydroconsolidation may exist

Legend



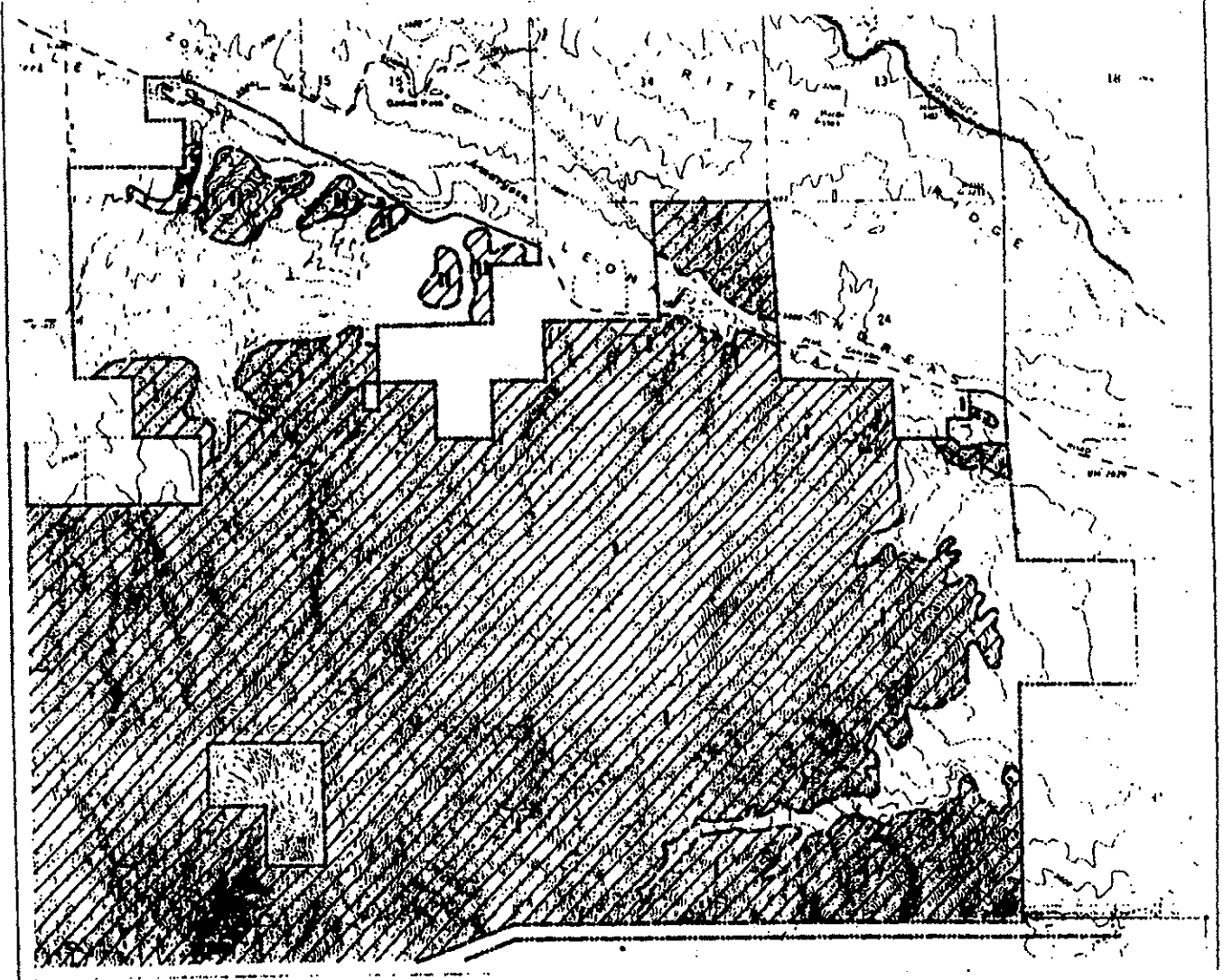
Peter Ranch Specific Plan

Source: Buena Engineers, Inc.

Legend

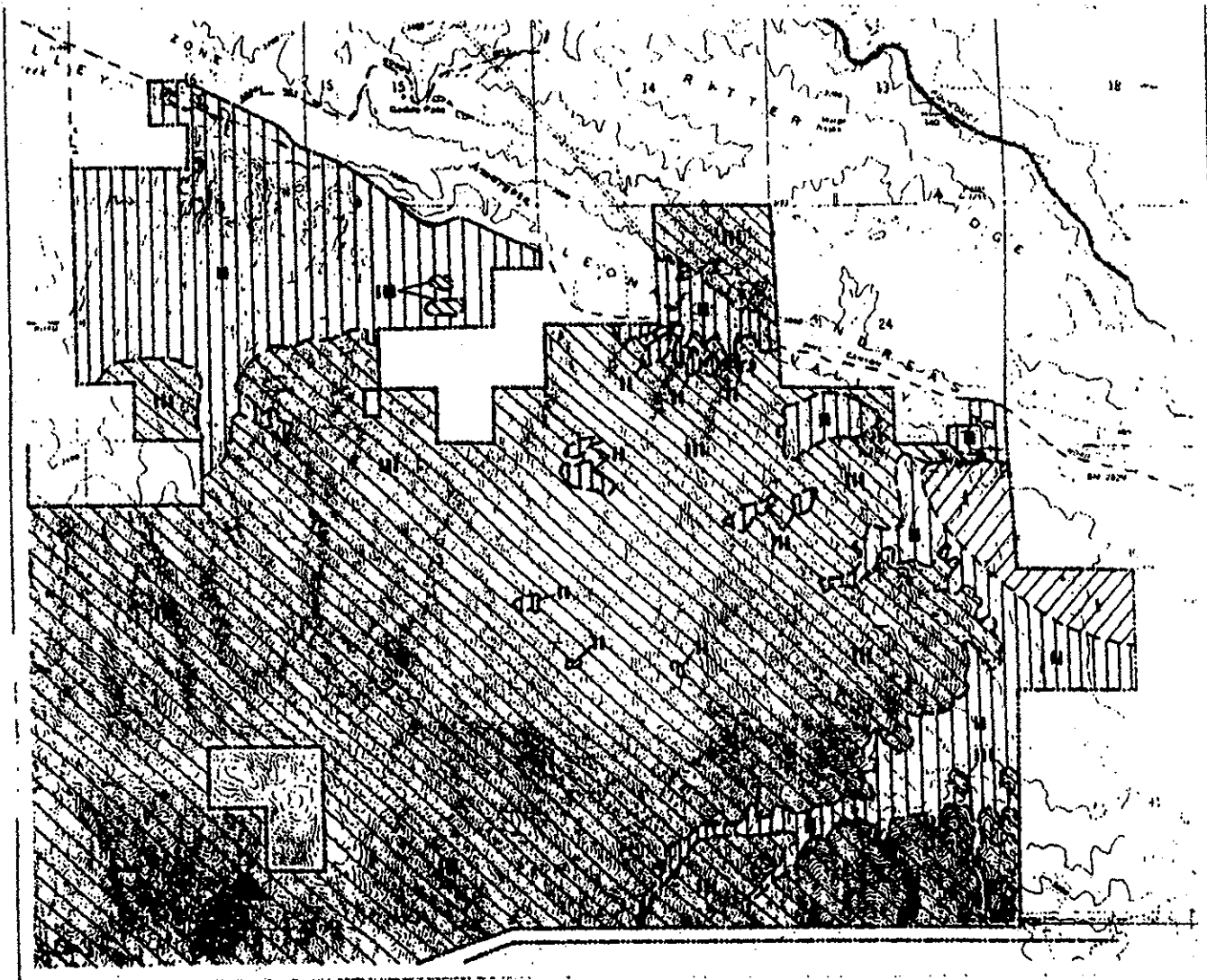
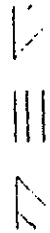
AREA 1

AREA 2



Ritter Ranch Specific Plan

Source: Buena Engineers, Inc.



Ritter Ranch Specific Plan

Source: Buena Engineers, Inc.

zontal to vertical). Natural or man-made cut slopes which expose unsupported geologic structures such as foliation planes are considered to be potentially unstable.

Consolidation and settlement is expected related to fills up to the proposed maximum thickness of 100 feet. Settlement expected within the proposed development will be due to building loads and the thickness and weight of fill. In addition, where natural unconsolidated subsoils underlie fills, it is expected that the native soils will consolidate due to the weight of the overlying fill, resulting in settlement of the total fill column. It is also possible that seismic induced settlement of native soils underlying fills would occur due to consolidation or liquefaction. Finally, compacted fill may be susceptible to consolidation if excessive amounts of water are allowed to enter the fill material. The amount of settlement from the introduction of water will depend upon the quantity of water introduced and the stresses within the fill column.

Appropriate planning, design, construction, and project maintenance will be required to minimize potentially damaging settlement underlying the proposed residential and commercial structures. With the implementation of proposed mitigation measures, no significant impacts due to soil consolidation or settlement are anticipated to result from project implementation.

Collapse and/or hydroconsolidation may occur on all surficial soil materials within the project area upon placement of structural loads and/or saturation (particularly Quaternary soils). If these soil materials were to be left in place, the structural integrity of the proposed development could be significantly impacted. Hydroconsolidation, if left untreated, may cause unacceptable settlement of foundations supported by the collapsible soil. The upper native soils will not provide uniform or adequate support for the proposed structures without the recommended sitework. To decrease the potential for hydroconsolidation and provide a more uniform bearing for the proposed structures, the removal of the collapsible soil and constructing recompacted soil mats beneath all the foundations and slabs-on-grade constructed within the alluvial areas is recommended, which will adequately mitigate potential impacts. Temporary stockpiling may be necessary during grading, although the project site is expected to be "balanced" overall in conjunction with offsite Amargosa Creek Improvement Project fill requirements (cuts and fills will be roughly equal, avoiding the need to import or export significant amounts of material, allowing for exports for the Amargosa Creek Improvement Project).

Expansion potential. The clay-rich portions of the Portal Schist soils are considered to have a medium to high expansion index and could impact the design/construction consideration of portions of the proposed development. Expansive soils expand when wetted and contract as they dry. The instability of expansive soils renders them unsuitable substrates for development. However, if the soil is thoroughly mixed and additional fill is added during site preparation, the expansion indices may change. The expansion index should be evaluated after the site preparation has been completed and the final foundation design adjusted accordingly.

Groundwater

Liquefaction. Based upon the cohesive and fine-grained nature of the soils encountered below the water table on the sites, the potential for onsite liquefaction is moderate to low. Known areas of high groundwater are generally confined to the alluvial areas adjacent to the Amargosa and Anaverde Creeks' flood prone areas. Due to the dense nature of the Tertiary age Anaverde Formation sediments, the potential for seismically induced liquefaction within saturated portions of these materials is considered remote. Development of areas subject to liquefaction would expose humans to potential safety hazards from structural failures. This would be a significant impact. However, any development upon areas subject to significant liquefaction hazards shall be required to implement measures that will reduce these impacts to less than significant levels.

Groundwater Recharge. Assuming resulting residential development will not rely on groundwater as a source of water, increased groundwater recharge in the project area will likely result from irrigation of lawns, gardens, landscaped areas and the golf course (and in consideration of water recharge from detention and debris basins, as well as potential onsite use of reclaimed water from the onsite location reserved for a wastewater treatment plant). Elevated groundwater levels can result in liquefaction and/or expansion of soil that are stable when above the water table. The destabilization of soils underlying structures could result in structural failure. This would be a significant impact. Site-specific detailed studies will be required to examine local and downstream groundwater level effects in consideration of present water table levels.

Water quality and erosion/sedimentation concerns are discussed in Section IV.C, WATER RESOURCES.

Seismicity

Ground Shaking/Rupture. It is anticipated that the project sites will be affected by moderate to strong ground shaking due to earthquakes on one or more active faults in the region. It should be noted that no residential, commercial or park areas will be constructed in Restricted Use Areas on the Ritter Ranch site. Due to the proximity of the project sites to the San Andreas Fault (zone), a major earthquake occurring nearby on the fault can be expected to produce extreme ground shaking and lurching within the vicinity of the project areas. Differential movement across the fault of approximately 15 feet is anticipated, with associated major damage. The occurrence of an earthquake and fault rupture along this fault within the next 50 years is considered high. Intensities of ground shaking at the project site will not necessarily be any greater than those experienced in the greater Palmdale area, however portions of the sites within "Restricted Use Areas" could experience ground rupture. Other secondary seismic hazards that are the direct result of the vibratory motion or crustal deformation associated with faulting include, but are not necessarily limited to, ground rupture, settlement and liquefaction. It cannot be assumed that ground rupture will only occur on the presently mapped fault traces. It is probable that other faults/shear zones, some of which may not be apparent on the ground surface, could experience sympathetic movement during an earthquake on either the San Andreas or North Branch of the San Andreas Fault.

Seismically related flooding from failure of the nearby California Aqueduct or siphons is possible but not considered likely. If the California Aqueduct were to fail, flooding would be generally confined to existing drainage courses east of the property, including Amargosa Creek or Anaverde Creek. Given the large distance between the site and the ocean, hazards due to a tsunami are not considered significant.

Offsite Infrastructure Improvements

The project (and other existing and proposed development) will require substantial offsite improvements as part of the Amargosa Creek Improvement Project. This will require substantial fills within the Creek vicinity, as well as excavations for detention basins. These potential impacts will be addressed in the Amargosa Creek Improvement Project EIR (in process).

MITIGATION MEASURES

General

- *# 1. Prior to approval of any Development Application, the applicant shall provide a detailed geotechnical investigation, including recommended design, construction, and maintenance of mitigation measures to reduce potential geologic constraints, to the satisfaction of the City Engineer. At minimum, the report shall address slope stability, locations and setbacks for active/potentially active faults, excavation requirements for unsuitable surficial material, liquefaction potential and groundwater/seepage conditions. All future discretionary approvals must comply with the applicable recommendations set forth in the required investigation. Typical mitigation for geologic hazards include excavation and/or stabilization (buttress/retaining walls) of landslides and excavation of undesirable materials (such as those subject to settlement, hydroconsolidation, expansion or liquefaction) and re-compaction, if necessary, with suitable material. Recommendations from the report shall be incorporated into final grading plans, to the satisfaction of the City Engineer.
- *# 2. All grading and landform modifications shall be conducted in conformance with state-of-the-practice design and construction parameters as set forth in Chapter 70 of the Uniform Building Code. All graded slopes should be constructed to be grossly and surficially stable, to the satisfaction of the City Engineer.
- *# 3. Reshaping of the natural terrain to permit access and construction shall be kept to a minimum. Where possible, improvements should be designed to conform to the terrain to the satisfaction of the City Engineer.
- *# 4. Where grading is necessary on minor inclined or steep terrain, the following guidelines shall apply:
 - Traditional Design: The angle of the graded slope shall be gradually adjusted to the angle of the natural terrain.
 - Angular Form: Angular forms should be avoided. The graded form shall reflect the natural rounded terrain, to the extent feasible.
 - Exposed Slopes: Graded slopes shall be concealed wherever possible.

- *# 5. Remedial grading within the sites to mitigate the effect of collapsible surficial soils shall be performed prior to site development.
- *# 6. Positive surface-water drainage control measures shall be undertaken by the project applicant to reduce the creation of new springs or seeps to the satisfaction of the City Engineer, particularly in any high groundwater areas proposed for development.
- *# 7. Fill slopes should be constructed at a maximum slope of 2:1, unless otherwise approved by the City Engineer.
- *# 8. To prevent erosion and subsequent downstream siltation, the applicant shall comply with the conditions of an Erosion and Sedimentation Control Plan to be submitted for review and approval by the Antelope Valley Resource Conservation District, and review and approval by the City of Palmdale. The Plan shall address the following, at minimum:
- Recommendations for drought resistant slope planting shall be provided by a qualified landscape architect prior to project approval and implemented by the project applicant.
 - Periodic maintenance and repair of all slopes and drainage outlets shall be conducted during and following site development.
 - Following site development, slope plantings and irrigation systems shall be maintained and leaks in the irrigation system shall be fixed without delay.
 - Drainage outlets shall be periodically inspected and cleaned of silt and debris both during and following site development.
 - All slopes shall be periodically inspected for evidence of cracking and erosion and any problems shall be repaired immediately.
 - Rodent activity shall be controlled to prevent water penetration and loosening of the soil.
 - Minimizing the length of time that soils lie exposed.

- Regular watering of cleared areas, in compliance with City requirements and SCAQMD Rule 403.
- Minimize the extent of cleared areas at any given time.
- Establishment of maximum vehicle speeds within construction areas.
- Pursuant to City Standards, revegetating graded areas as soon as possible after rough grading (landscaping, hydroseeding, or any other method of providing vegetative cover).
- Using of sandbags or similar surface water controls prior to and during grading if grading is to be done during the rainy season.
- Use of soil stabilizers where feasible.

#9. Each deed or other conveyance of Real Property shall include the following statement: "Ritter Ranch is traversed by major splays (branches) of the San Andreas Fault Zone, a very youthful geologic feature. Due to the proximity of the Ritter Ranch site to the San Andreas Fault, there is a high risk of experiencing strong ground shaking and possible surface fault rupture." Additionally, where applicable, each disclosure statement within the deed shall contain language which denotes the possibility of building restrictions on residential additions for human occupancy on those parcels which are located in Fault Hazard Restricted Use Zones.

Ritter Ranch

#10. In addition to the mitigation measures listed below, compliance with the mitigation measures from the following sections of the Buena Engineers, Inc. Geotechnical Report is required to the satisfaction of the City Engineer (this report is included in Appendix B, PRELIMINARY GEOTECHNICAL INVESTIGATION): Site Grading and Foundation Recommendations; General Site Preparation; Slope Stability (fill slopes and cut slopes); Mountain Road Grading; Building Pad Construction; General Site Grading -All Lot Conditions; Lots Within Younger Alluvial Areas; Lots Within Older Alluvial Areas; Lots with Bedrock Exposed or Located within Two Feet of the Surface; Transition Lots; Excavations; Utility Trenches; Foundations; Slabs-on-Grade;

Lateral Earth Pressures; Expansion; Preliminary Paving Sections; Swimming Pools; and Seepage Control.

- #11. The site shall be designed to accommodate City of Palmdale Engineering Design Standards and the Master Plan of Drainage, ~~except as otherwise approved by the City Engineer~~, for controlling flooding and debris flows within and adjacent to Anaverde Creek, Amargosa Creek, and other existing natural drainage courses.
- #12. Areas noted on Exhibit 10A with an "SF" (Special Foundation Areas) or as identified in subsequent geotechnical studies are recommended for more heavily reinforced foundations and such requirements shall be indicated on each deed for Real Property within the Special Foundation Areas relative to existing and potential additional foundations on the property.
- #13. Due to possible adverse geologic conditions in the bedrock areas (associated with bedding plane potential landslides), especially in the Pelona Schist areas in the central and southern portions of the Specific Plan site, detailed site specific analyses relative to slope stability shall be performed for all proposed cut slopes prior to issuance of grading permit. Grading permit issuance will be subject to the grading plan demonstrating compliance with applicable recommended slope stability measures.
- #14. Cut slopes within alluvial areas will be constructed at a maximum slope of 2¼:1 (unless otherwise approved by the City ~~Engineer~~ Geologist).
- #15. Road fills proposed for any planned high cut slopes, and buttress fill shall be required to stabilize the cut and adjacent hillsides (actual dimensions shall be based on grading plans and site conditions).
- #16. Prior to Development Application approval, the applicant shall demonstrate, to the satisfaction of the City Director of Planning and the City Engineer that all feasible mitigation measures have been implemented to minimize grading impacts. The applicant may be required to submit complete geotechnical studies and/or reports to the satisfaction of the City Engineer. Consideration shall be given to use of "stepped" play fields for the school and park sites, particularly where a relatively level surface across the entire facility would require significant grading.

- #17. The project geotechnical consultant shall be responsible to perform confirmatory tests and observations during grading to assure that the geotechnical recommendations are being followed and shall certify that all grading complies with the provisions of all approved plans and specifications, pursuant to the Los Angeles County Uniform Building Code, Chapter 70.
- #18. Comprehensive geotechnical investigations including exploratory drilling, sampling and laboratory testing shall be performed prior to issuance of grading permit. Grading permit issuance will be subject to grading plan compliance with applicable recommendations.
- #19. Subsurface exploration shall be performed prior to issuance of grading permit. Grading permit issuance will be subject to grading plan compliance with applicable recommendations.
- #20. In order to evaluate the potential for ground-surface rupture along the trace of an active fault within the San Andreas fault zone, and provide setback recommendations for proposed structures, exploratory fault trenching shall be performed prior to issuance of grading permit. ~~(see Section IV.A for additional mitigation measure text).~~
- #20a. Prior to issuance of building permits, the project applicant shall prepare an emergency spill response plan which includes the following measures for review and approval by the City of Palmdale and County Sanitation District No. 20.
- Measures to detect early warning of a sewage trunk leak;
 - The installations of manual or automatic isolation valves;
 - Provisions for spilled sewage retention;
 - Spill response measures;
 - Clean-up and disinfection measures; and
 - Training and funding for implementation of the spill plan.

UNAVOIDABLE SIGNIFICANT IMPACTS

Project development will result in significant landform modification, although project design has incorporated substantial mitigation in the form of open space and clustered development.

Increased groundwater recharge resulting from landscape irrigation may significantly affect local groundwater levels and is considered unavoidable.

Ground shaking can be expected to occur in the project vicinity as a result of future seismic activity along known and undiscovered faults in the surrounding region. Compliance with applicable grading and building design requirements is expected to reduce potential impacts to the maximum extent feasible, however, significant impacts may still occur after mitigation measures are implemented.

B. AIR RESOURCES

Information in this section is based upon the "Air Quality Impact Assessment, Ritter Ranch Specific Plan, Antelope Valley, California" prepared by Giroux & Associates in October, 1990 (refer to Appendix C, AIR QUALITY ASSESSMENT), Air Quality Handbook for Preparing EIRs (South Coast Air Quality Management District (SCAQMD), Revised 1987), the Summary of Air Quality in California's South Coast Air Basin (SCAQMD, 1983), Impact Assessment: Draft Baseline Projection (SCAG, updated March, 1987), Air Quality Data 1982-1989 (SCAQMD), Final 1989 Air Quality Management Plan (SCAQMD, adopted March, 1989), The National Oceanic and Atmospheric Administration Climatological Data Annual Summary, and the Soil Survey -Antelope Valley Area, California (U.S. Department of Agriculture Soil Conservation Service).

EXISTING CONDITIONS

Climate

The project site lies within the northwestern portion of the Southeast Desert Air Basin (SEDAB), in the extreme southwestern extension of the Mojave Desert. The eastern edge of SEDAB is bounded by the Colorado River. The western boundary follows the ridgeline of a series of high mountain ranges, the San Gabriel, San Bernardino and San Jacinto ranges, which form both a physical and climatological barrier between the Southeast Desert and South Coast Air Basins.

The SEDAB has a desert climate characterized by low annual rainfall, low humidity, hot days and very cold nights. The mean annual precipitation in the SEDAB portion of Los Angeles County averages about 2.5 inches in the lower elevations, most of which occurs between November and March (foothill areas in higher elevations have increased rainfall). Temperature varies greatly between summer and winter. The average annual temperature is 60.7°, ranging from an average minimum of 41.7° in January to an average maximum of 83.9° in July. About 100 days per year reach 90°, while about 60 days drop to slightly sub-freezing temperatures. Relative humidity is generally low in summer; afternoons are particularly dry. These clean, dry conditions result in intense solar radiation that, combined with high temperatures, is highly conducive to photochemical smog formation.

The project site is located within the eastern foothill portions of Leona Valley, which is characterized by more cool temperatures and increased precipitation as compared to the

desert alluvial fan areas to the east (Palmdale and Lancaster). A Leona Valley resident has reported annual rainfall ranging between 3.9 inches to 16.7 inches and annual snowfall ranging from 0 inches to 18.9 inches, between 1985 and 1990, with average annual rainfall of 8.5 inches (recent years have experienced reduced precipitation due to the statewide drought condition, which is entering its fifth year).

Winds in the Antelope Valley are typically brisk and highly persistent, originating mainly from the west and west-southwest. The average speed of approximately 13 mph usually allows any localized pollution to be scattered. Most regional air quality problems are, therefore, due to interbasin transport from the Los Angeles area through mountain passes such as Soledad Canyon. The prevailing winds typically move polluted air from the more densely populated portions of the South Coast Air Basin toward the Southeast Desert Air Basin, with the air entering the Desert Basin from mid-afternoon to late evening.

In addition to brisk winds, the Antelope Valley rarely experiences the summer temperature inversions which frequently "cap" polluted air layers in the Los Angeles Basin area. However, inversions can form during cold nights with mild winds, but are usually removed during daytime heating. When these desert inversions form, they may trap pollutants near low-level emission sources such as freeways or parking lots.

Air Quality Management

The proposed project is located in the Southeast Desert Air Basin (SEDAB) and, jurisdictionally, is governed by the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). The SCAQMD sets and enforces regulations for stationary sources in the Basin while CARB is charged with controlling motor vehicle emissions. In accordance with the State Lewis Air Quality Act (1976) and the Federal Clean Air Act Amendments (1977), the Air Quality Management Plan (AQMP) was prepared for the South Coast Air Basin. The AQMP was originally adopted by the Southern California Association of Governments (SCAG) and the SCAQMD in 1979, with subsequent revisions in 1982, 1988 and a proposed 1991 revision planned for SCAQMD adoption in July, 1991. The Plan is governed by State and Federal laws and is part of the State Implementation Plan (SIP) submitted to the EPA. The EPA is responsible for ensuring that federal air quality standards are met by states, and has the authority to require AQMP revisions and/or may withhold federal funding to states that do not comply with EPA requirements for the AQMP process.

The Air Basin is a "non-attainment" area for Ozone (O₃) and Ten Micron Particulates (PM₁₀). Non-attainment refers to the fact that the Federal and State ambient air quality standards are violated in the region. Under the provisions of the Federal Clean Air Act (FCAA) amendments of 1977, the Environmental Protection Agency (EPA) was required to classify each air pollution control district (or Air Quality Management District) with respect to attainment or non-attainment status. As a non-attainment region, the region must participate in the State Implementation Plan pursuant to the Federal Clean Air Act and amendments thereto. Under AB 2595 (California Clean Air Act of 1989), the SCAQMD must adopt a new Attainment Plan (Air Quality Management Plan) by June 30, 1991. In accordance with the AB 2595, the SCAQMD has issued a draft of its proposed 1991 Air Quality Management Plan. The Plan must be adopted and submitted to the ARB by July 1, 1991 to comply with the California Clean Air Act (CCAA) time requirements for severe nonattainment areas and districts which receive transported air pollutants.

The SCAQMD, in coordination with the Southern California Association of Governments, adopted an updated AQMP in 1982 and recently completed the Final 1988 AQMP (adopted by SCAQMD in March, 1989). Included in the 1988 Plan are new stationary and mobile source controls; carpooling, vanpooling, and other ride-sharing programs; and energy conservation measures. The AQMP is designed to accommodate a moderate amount of new development and growth throughout the Basin. The 1988 AQMP projections and mitigations are based on SCAG growth forecasts (the SCAQMD revised the AQMP to reflect growth forecasts from SCAG). The Final 1988 AQMP includes additional control measures to attain healthful levels of air quality by 1996 for Nitrogen Dioxide, 1997 for Carbon Monoxide and 2007 for Ozone and PM₁₀, with interim goals for Ozone and PM₁₀ by year 2000.

Within the AQMP is a list of strategies designed to improve the transportation system throughout the region. This package of measures explores the feasible limits for long range solutions to system-wide air quality concerns. Measures included in the AQMP can be divided into three classes: Tier I (present technology); Tier II (advanced technology and regulatory intervention); and Tier III (new technology). Control measures within each tier are grouped in several categories, intended to reduce emissions from specific sources of activities. Categories include stationary sources, commercial and industrial processes, residential and public sectors, agricultural processes, motor vehicles, transportation system and land use, and off-road vehicles. The land use strategies focus on land use measures that could help reduce the number and length of automobile trips made, with the underlying premise that trip making and mode choices are not only a function of the transportation

system, but also of such factors as housing density, the relative location of land uses, and the way land uses relate to the transportation system. Tier I includes telecommunications, employer rideshare and transit incentives, parking management, vanpool vehicle purchase incentives, HOV lanes, transit improvements, growth management, truck controls and traffic flow improvements (Final 1988 AQMP, SCAQMD, 1989, p.4-20).

The Draft 1991 Plan also includes the Tier I, II and III control measures identified in the Final 1988 AQMP. In addition, 40 Tier I measures were added to the Final 1988 AQMP as a part of the new Plan. Tier I measures are scheduled for adoption by 1996. The 1991 Plan added eight Tier II measures to be implemented over the next 10-15 years. The Draft 1991 plan follows the format of the Final 1988 AQMP, which was designed to meet the requirements of the Federal Clean Air Act. The Draft 1991 Plan, however, is designed to meet the more stringent requirements of the 1989 California Clean Air (AB 2595). In addition, the Draft 1991 Plan has identified a number of "contingency" measures which may have to be implemented if some of the Tier I and Tier II measures are not implemented, if the Tier III measures don't occur, or if the expected emissions from adopted measures don't materialize. These contingency measures include parking lot fees, limiting vehicle registration, gasoline taxes, highway user fees, and a flat reduction on vehicle miles traveled enforced by some unmentioned form of control. The Draft 1991 Plan may also make employers of 50 or more subject to the requirements of Regulation XV by the year 1993. Regulation XV presently requires employers of 100 persons or more to submit trip reduction plans to the SCAQMD (some local jurisdictions, such as the City of Irvine, are adopting ordinances that would extend Regulation XV requirements to smaller businesses).

It is anticipated that with the use of only the Tier I controls, the SCAQMD will meet the Federal and State NOx standard and the Federal Carbon Monoxide standard by the year 2000. However, it will take a combination of Tier I, II, and III controls to meet most of the other standards including the State and Federal Ozone standard. The Draft 1991 Plan assumes that even with all of the visionary Tier III controls in place, the SCAQMD will still not meet the State Ozone standard by the year 2010.

Senate Bill 151, enacted in 1987, gave the SCAQMD significant new authority to develop and enforce transportation and land use control measures. SCAQMD is in the process of developing and implementing a number of new programs and regulations, such as ridesharing requirements and restricting heavy truck use of freeways during peak hours.

SEDAB Air Quality

The SCAG (Southern California Association of Governments) Impact Assessment: Draft Baseline Projection indicates that stationary Reactive Organic Gas (ROG) emissions in SEDAB will be ten percent (10%) lower than under the SCAG-82M forecast. However, the drop in stationary source emissions is not enough to offset a projected 31% increase in mobile source Reactive Organic Gas (ROG) emissions brought about by high population growth and a job/housing imbalance.

The intensive development plans for the Palmdale Airport, situated in and impacting SEDAB, also contribute to the higher mobile source emission levels under the SCAG Baseline Projection 1988. The Baseline Projection is the latest growth forecast data available from SCAG, and served as the foundation for development of the SCAG-88 growth forecast policy to replace SCAG-82M (growth forecasts include the desert portions of Los Angeles and Riverside Counties). These factors result in the Baseline Projection estimating 6% higher levels of ROG emissions than did the SCAG-82M growth forecast for SEDAB, erasing the progress planned from mobile source emission reductions towards attaining air quality standards.

In addition, improving SEDAB air quality is complicated by transport from the South Coast Air Basin. High morning background ozone concentrations occurring in SEDAB are caused by transport of ozone (a secondary pollutant), from the Los Angeles basin. On transport days, diurnal increases in ozone levels still result from local sources, however, the background concentrations already exceed standards. These findings point to the need to effect improvements in South Coast Basin air quality, as well as to achieve tighter local controls, in order to attain standards in the Southeast Desert Basin.

Ambient Air Quality

Air quality at any site is dependent on the regional air quality and local pollutant sources. As noted above, regional air quality is primarily a function of basin topography, wind patterns and emissions. Primary pollutants under the influence of these variables react with each other in sunlight to form secondary pollutants such as Ozone. Emissions generated in the Southeast Desert Air Basin are generally well diluted by the excellent daytime vertical mixing induced by high surface temperatures, though high background levels of particulate matter result in frequent violations of Total Suspended Particulate (TSP) standards. In the Southeast Desert Air Basin, most of the TSP is of natural origin. Chemical analysis for

constituents such as Lead and Sulfate show these to be present in much lesser amounts than is typical of the densely populated South Coast Air Basin.

The air monitoring station nearest to the project is operated by the SCAQMD in Lancaster, and is approximately 12.5 miles northeast of the project site (within Source Receptor Area 14). The data collected at this station is considered to be representative of the air quality experienced in the vicinity of the project area. Air quality data for 1982 through ~~1990~~ 1989 for the Lancaster Station is provided in Table 4, LOCAL AIR QUALITY LEVELS. As indicated by the Table, TSP and Ozone are the pollutants of primary concern in the area. The particulate matter originates within the Southeast Desert Air Basin. However, much of the other pollutants are a result of South Coast Air Basin pollutants spilling over into the desert area.

Vehicle emissions along major arterials currently expose land uses in the project area to increased concentrations of pollutants, particularly Carbon Monoxide. Carbon Monoxide is the pollutant of major concern along roadways, as it is directly emitted from motor vehicles.

The following air quality information focuses on State standards, which are more stringent and therefore more accurate estimates for worst-case analysis of air quality impacts, as compared to Federal Standards. The information is based on material obtained from SCAQMD, including the Air Quality Handbook, Summary of Air Quality, and Air Quality Data. Refer to Table 4, LOCAL AIR QUALITY LEVELS for information on days exceeding Federal standards.

Carbon Monoxide (CO) is a colorless, odorless gas produced by incomplete combustion of carbon-containing fuels, such as gasoline. Approximately 80 percent of the CO in the atmosphere of the Basin is emitted directly from and slightly downwind of areas with heavy traffic (approximately 97 percent of CO in the Southeast Desert Air Basin is from Mobile Sources).¹ CO concentrations are generally higher along roadways, especially in the early mornings, late evenings and winter. As shown in Table 4, LOCAL AIR QUALITY LEVELS, Carbon Monoxide levels did not exceed the State standard of 20 ppm (parts per million, averaged over 1 hour) between 1986 and ~~1990~~ 1989. In 1978, the State standard of 9.1 ppm averaged over 8 hours was exceeded on 4 days.

¹Impact Assessment Data: Draft Baseline Projections. (SCAG). Updated March 1987 (Pages 14-30 and 14-6).

Table 4

LOCAL AIR QUALITY LEVELS
-Compared to State and Federal Standards-
As monitored at the Lancaster Ambient Air Monitoring Station

<u>Pollutant</u>	<u>California Standard</u>	<u>Federal Preliminary Standard</u>	<u>Year</u>	<u>Maximum¹ Concentration</u>	<u>Days State/Federal Std. Exceeded</u>
CO Carbon Monoxide)	20 ppm (1-hour Avg.)	35 ppm (1-hour Avg.)	1986	9.00	0/0
			1987	12.00	0/0
			1988	11.00	0/0
			1989	13.00 7.10	0/0
			1990	11.00	0/0
Ozone (1-hour Avg.)	0.09 0.10 ppm (1-hour Avg.)	0.12 ppm	1986	0.20	108/46
			1987	0.17	105/32
			1988	0.18	105/44
			1989	0.21	95/27
			1990	0.15	52/7
NO ₂ Nitrogen Dioxide) ²	0.25 ppm (1-hour Avg.)	0.0532 ppm (Annual Avg.)	1986	0.09	0/0
			1987	0.09	0/0
			1988	0.09	0/0
			1989	0.08	10/0
			1990	0.09	0/0
SO ₂ Sulphur Dioxide)	0.05 ppm (24-hour Avg.)	0.14 ppm (24-hour Avg.)		NOT MEASURED	
Visibility Humidity less than 70%	10 miles with Humidity less than 70%	NS	1986	NOT MEASURED	
			1987		1
			1988		5
			1989		2
			1990		14
			(William J. Fox Airport)		
Suspended particulates (PM10) ³	50 ug/m ³ (24-hour Avg.)	150 UG/M ³ (24-hour Avg.)	1986	NOT MEASURED	NOT MEASURED
			1987	NOT MEASURED	NOT MEASURED
			1988	NOT MEASURED	NOT MEASURED
			1989	110 ⁴	25/0 ⁵
			1990	342⁶	27/2⁵

Source: Air Quality Data. SCAQMD. ~~1986-1990~~ 1982-1989.

¹Maximum concentration measured over same period as California Standard, although Carbon Monoxide maximum concentration for one hour and Lead is over 24 hours.

²Less than 12 months of data for Nitrogen Dioxide in 1982. Prior to 1985, Federal standard information is not available.

³PM10 refers to fine particles with aerodynamic diameter of 10 micrometers or less.

⁴Based on 56 samples.

⁵Number of samples exceeding standard.

⁶Based on 58 samples.

Table 4 (continued)

LOCAL AIR QUALITY LEVELS
-Compared to State and Federal Standards-
As monitored at the Lancaster Ambient Air Monitoring Station

<u>Pollutant</u>	<u>California Standard</u>	<u>Federal Primary Standard</u>	<u>Year</u>	<u>Maximum Concentration</u>	<u>Days State/Federal Std. Exceeded</u>
LEAD	1.5 ug/m ³ (1 month Avg.)	1.5 ug/m ³ (Quarterly Avg.)	1986	0.26	0/0
			1987	NOT MEASURED	
			1988	NOT MEASURED	
			1989	NOT MEASURED	NOT MEASURED
			1990	NOT MEASURED	NOT MEASURED
SO _x (Sulfates)	25 ug/m ³ (24-hour Avg.)	NS	1986	8.9	0/NS
			1987	7.3	0/NS
			1988	5.7	0/NS
			1989	17.0	0/NS
			1990	6.0	0/NS
			1989	17.0	0/NS

NS: No standard set.

*: Less than 12 full months of data. Monitoring discontinued.

Ozone, a colorless gas with a sharp odor, is a highly reactive secondary pollutant (it is not directly emitted). Ozone is the result of complex chemical reactions of primary pollutants, specifically reactive hydrocarbons and oxides of nitrogen in the presence of bright sunlight. Hydrocarbons and nitrogen dioxides are emitted from mobile and stationary sources, with the greater contribution coming from mobile sources in the basin. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in Lancaster. Therefore, all areas of the South Coast Air Basin and portions of the Southeast Desert Air Basin contribute to the Ozone levels experienced at the project site, with the more significant areas being those directly upwind. These concentrations increase in the summer, with peak concentrations increasing from late morning through afternoon.

Because of the excellent dispersive capacity of desert air, the Ozone problem is primarily due to transport into the Antelope Valley rather than from any local pollutant contribution. Although local emissions do add incrementally to regional air quality degradation, their effects are obscured by the transport problem.

As shown in Table 4, the Ozone levels at the Lancaster Station have increased over the last four years, exceeding the State standard 108 days in 1986, with a maximum concentration of 0.20 ppm. Maximum concentration dropped in 1987 to 0.17 ppm, and increased in 1989 to 0.21 ppm, and dropped in 1990 to 0.15 ppm. The State standard for Ozone is 0.09 to 0.10 ppm averaged over 1 hour.

Nitrogen Dioxide (NO_2) is a reddish-brown gas with an odor similar to that of bleach. NO_2 is formed in the atmosphere primarily by rapid oxidation of nitric oxide (NO). Some NO_2 is also emitted with NO from stationary and mobile combustion sources. These compounds, NO and NO_2 , are referred to collectively as oxides of nitrogen (NO_x). The latest emissions inventory shows that 61 percent of the Basin's NO_x is emitted from mobile sources and 39 percent from stationary sources.¹ NO_2 is itself a regulated pollutant, but it also reacts with hydrocarbons in the presence of sunlight to form Ozone and other compounds that make up photochemical smog. Seasonal and diurnal patterns in NO_2 concentration vary widely between locations.

¹Impact Assessment Data: Draft Baseline Projections. (SCAG). Updated March, 1987 (Page 14-30).

The Lancaster station has not exceeded the State standard (0.25 ppm averaged over 1 hour) since 1978, with maximum concentrations declining to 0.08 ppm in 1989 and 0.09 ppm in 1990.

Sulphur Dioxide (SO₂) is a colorless gas with a sharp, irritating odor. It is emitted directly into the atmosphere, equally by mobile sources and stationary sources such as power plants, petroleum refineries, chemical plants, and steel plants. SO₂ diurnal concentrations are complex, but typically are higher at night. This pollutant is not measured at the Lancaster station; however the SOCAB has relatively low SO₂ concentrations, as no station has exceeded the Federal standard of 0.14 ppm (24-hour average) since the mid-1960's. Therefore, it is inferred that SEDAB has low SO₂ concentrations.

Visibility can be defined as the distance that atmospheric conditions permit a person to see at any given time. Technically, visibility is defined as the farthest distance an observer can distinguish a large black object against the horizon. Reduced visibility causes aesthetic impairment of our surroundings and also interferes with aircraft operations. The greatest contribution to visibility reduction in the Southeast Desert Air Basin is from light scattering by "fine particle" aerosols within the size range of 0.1 to 2 microns (a micron is one-millionth of a meter).

Visibility may be impaired by natural or man-made sources, including natural aerosols such as precipitation, fog, soil particles, volcanic emissions, vegetation, sea spray and organic decomposition products; and man-made sources such as sulfates and nitrates.

Visibility measured at William J. Fox Airfield (which is located in the northwestern portion of the City of Lancaster) exceeded the State standard 1 day in 1987, 5 days in 1988, and 2 days in 1989, and 14 days in 1990.

Total Suspended Particulates (TSP) is the name given to the solid matter suspended in the atmosphere, of which approximately 95% is from stationary sources.¹ This complicated mixture of natural and man-made materials includes soil particles, biological materials, sulfates, nitrates, organic (or carbon-containing) compounds, and lead. A high volume sampler is used to determine TSP concentration by passing a measured volume of air through a glass fiber filter. The filter then is weighed to determine the concentration of

¹Impact Assessment Data: Draft Baseline Projections. (SCAG). Updated March, 1987 (Pages 14-30).

TSP, after which it is analyzed for lead, sulfate, and nitrate by an SCAQMD laboratory. TSP tends to be at higher concentrations in the day but has an unclear seasonal pattern.

High dust levels result from strong winds and loose, arid soil. Much of the valley dust burden is in the form of large, heavy particles. Larger dust particles pose a less serious health threat than small particles produced by fossil fuel combustion. California established a State Standard for PM10 particulates in August, 1983. PM10 refers to fine particulates with an aerodynamic diameter of 10 micrometers or less. These particulates are considered a greater health risk.

Suspended Particulates (PM10) was not measured at the Lancaster station until 1989. The maximum concentration for PM10 in 1989 was 110 ug/m³ (24 hours) and 25 of 56 samples taken exceeded the State standard. In 1990, the maximum PM10 concentration was 342 ug/m³ (24 hours) and 22 of 58 samples taken exceeded the State standard. Particulates concentrations monitored at the Lancaster station should be representative of the levels experienced at the project site.

Lead. In this Basin, atmospheric Lead is generated almost entirely by the combustion of leaded gasoline, and contributed to less than 1 percent of the material collected as Total Suspended Particulate in 1982. Atmospheric Lead concentrations have been reduced substantially in recent years due to the lowering of average Lead content in gasoline. Exceedances of the State air quality standard for Lead (monthly average concentration of 1.50 ug/m³) now are confined to the densely populated portions of Los Angeles County where vehicle traffic is greatest.

Lead concentrations are typically highest in late fall and winter due to vehicle emissions being trapped by early-morning surface temperature inversions. Lead concentrations vary diurnally with CO, peaking in the early mornings and late evenings. The Lancaster Station has recorded a steady decline in maximum Lead concentrations, from 0.59 ug/m³ in 1982 to 0.26 ug/m³ in 1986 (not measured in 1987, and 1988, 1989 and 1990).

Sulfates (SO_x). Atmospheric Sulfates are formed mostly by oxidation of SO_x and primarily include ammonium sulfate, ammonium bisulfate and traces of sulfuric acid. In 1982, TSP collected at South Coast Air Basin air monitoring stations contained from 7 to 13 percent Sulfate. High Sulfate concentrations occur throughout the year. The highest average concentrations generally occur in the months of July through October, as this period registers many days of high relative humidity, strong photochemical activity and limited

vertical mixing, all of which favor the conversion of SO_x emissions to Sulfate. Sulfate concentrations do not show sharp diurnal variation, but peak at different times depending on location.

The sulfate levels at the Lancaster station have decreased from 8.9 ug/m^3 in 1986 to 5.7 ug/m^3 in 1988. The sulfate level increased substantially in 1989 to 17.0 ug/m^3 . The State standard of 25 ug/m^3 averaged over 24 hours has not been exceeded in the last five four years.

IMPACTS

There are no established thresholds of air quality impact significance except that a project may not cause ambient air quality standards to be exceeded, nor make measurably worse any existing violations (although the AQMD Handbook for Preparing EIRs identifies a "Threshold for Significance" for various project types and emission quantities). A project is also normally considered to have a significant air quality impact if it is inconsistent with the AQMP, particularly if it exceeds the land use and population forecasts adopted by SCAG as used for AQMP emission forecasts (AQMD Handbook for Preparing EIRs, 1987, p. II-1).

Ritter Ranch residential areas, and recreational and commercial development will potentially impact air quality primarily through transportation related air pollutant emissions. The mobile nature of these sources is such that they usually do not of themselves cause clean air standards to be exceeded. Rather, the emissions from this project will mix with those from many similar traffic intensive developments. The regional impact from any one project is incrementally small, but the cumulative impact of all such growth may contribute to continued unhealthy regional air quality in the Antelope Valley.

There are a number of secondary sources of air emissions from a project that attract or generate automobile traffic, but they are usually less significant in quantity or duration than the vehicular sources. They include temporary emissions during construction, increased electrical power demand from regional generating stations, on-site combustion of natural gas for space and water heating or cooking, and various population-related sources such as emissions from gas stations, dry cleaners, fireplaces and barbecues. Such sources are generally small on a individual project basis, but they are further evidence that continued regional growth contributes to air pollution from a wide variety of small, diverse sources.

Construction Impacts

Clearing, grading, utility excavation and travel on unpaved surfaces will create considerable quantities of fugitive dust during the construction cycle. The EPA estimates that there are about 1.2 tons of dust released per month per acre under disturbance if no dust control measures are applied to control these emissions. This is a universal factor derived from measurements outside California, and are not necessarily completely applicable to the project site. With dust control measures as required by the South Coast AQMD Rule 403, total dust emission levels can be possibly reduced by as much as 50 percent. Disturbance area is based on grading data in the Specific Plan (Appendix C estimates were based on typical disturbance area per residential unit). Disturbance time is estimated based on typical construction periods for individual sites. The overall active disturbance area of the 10,625-acre Ritter Ranch was calculated as follows:

6,305 SFU	=	2,290 AC x 6 MOS	=	13,740 AC-MOS.
895 MFU	=	48 AC x 6 MOS	=	288 AC-MOS.
73.0 COMM'L (acres)	=	73 AC x 11 MOS	=	803 AC-MOS.
Schools	=	121 AC x 11 MOS	=	1,331 AC-MOS.
Parks	=	360 AC x 3 MOS	=	1,080 AC-MOS.
Major Roadways	=	148 AC x 6 MOS	=	888 AC-MOS.
Miscellaneous (Fuel Mod. Zones, Specialty Parks and Open Space Uses/Trails)	=	<u>500 AC x 6 MOS</u>	=	<u>3,000 AC-MOS.</u>

TOTAL BUILDOUT (over a 20-year period)	=	3,540 Acres	=	21,130 AC-MOS.
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A total of 1,057 acre-months (average acres under construction times average months under construction) were thus assumed under construction each year during the 20-year Ritter Ranch buildout. Applying the EPA's dust emissions factor adjusted for the AQMD's requirement for an effective system to control dust emissions during construction yields a predicted annual dust emissions level of around 634 tons as an annual average (assuming 1.2 tons per month per acre and a 50% reduction). It should be noted that these emissions are total suspended particulates (TSP) while the current federal and state clean air standard is for the 10-micron diameter fraction (PM-10) of the TSP, which is a more serious health concern due to its smaller particle size enabling inhalation by humans. Dust emissions are spread out over the entire buildout phase and occur in a diversity of locations. Impact to any individual receptor will be temporary and relatively sporadic. Therefore, human health

impacts due to the emission of PM-10 particles by project construction activities are not anticipated to be significant with implementation of mitigation measures.

A large portion of the TSP, however, is comprised of larger diameter particles outside the PM-10 size range. Many of these larger dust particles will quickly settle back out on nearby surfaces such as parked cars or landscaping foliage within a few hundred feet of any construction activity source. Such dust, therefore, comprises more of a soiling nuisance within the immediate proximity of any individual project site rather than any adverse health impact. With prevailing southwest winds throughout the day, dust emissions will usually be carried northeastward from any specific development site. Soiling effects typically extend 500 feet from the dust source such that there are a relatively limited number of receptors exposed to any temporary fugitive dust impacts. The typical 500-foot construction dust impact zone may become much larger, however, when brisk Santa Ana winds scour freshly disturbed areas, particularly while equipment is operating on unpaved surfaces. With a high frequency of strong winds, even the larger diameter particles may be carried well beyond the normal 500-foot dust impact zone. Grading permits are, therefore, often conditioned to terminate site operations when winds exceed 25-30 mph to minimize such nuisance. Nuisance impacts due to the generation of dust by project construction activities are not anticipated to be significant following implementation of required mitigation measures.

In addition to construction dust, such activities also create considerable quantities of combustion emissions from on-site heavy equipment and from off-site trucks moving dirt or hauling building materials. Commercial and residential land uses require about 250,000 Brake Horsepower Hours (BHP-HR) of equipment operations to build out one acre. Assuming that most of the construction equipment is diesel-powered, then the complete buildout of the Ritter Ranch project site will generate the following annual air pollutant emissions (in tons) during the assumed 20-year buildout lifetime of the project (adjusted from Appendix C to reflect revised disturbance area estimate), based on emissions from the average California construction vehicle fleet (ARB, Area Source Emissions Documentation, 1981):

Hydrocarbons	-	51 tons
Carbon Monoxide	-	127 tons
Nitrogen Oxides	-	475 tons
Total Particulates	-	42 tons
Sulfur Oxides	-	40 tons

These emissions derive from the calculated disturbance area. These emissions are widely distributed in space and time by the mobile nature of the sources themselves such that any observable impacts are typically confined to within a few feet of the construction equipment and trucks themselves. Such impacts are, therefore, individually not significant at any given project site. On a larger scale, however, these sources are a long-term additional increment to the regional pollution burden. In particular the NO_x emissions from such equipment, even when spread over a number of years of site development, is a substantial daily increase in the valleywide NO_x burden. Emissions control from off-road sources such as construction equipment has been proposed in non-attainment areas of California, and may ultimately be imposed by the California Air Resources Board to reduce this significant contribution to the regional NO_x inventory. Such controls are anticipated as one of the control measures in the regional AQMP if and when the ARB authorizes pollution control on off-road mobile equipment sources. Any AQMP requirements notwithstanding, emissions control should be an integral requirement for all developers and contractors building within Ritter Ranch.

The 309-acre portion of the "Other Annexation Areas" zoned for development is estimated to result in similar construction impacts as Ritter Ranch although approximately 1/10 the magnitude (excludes the microwave station sites, which will be restricted from development).

Mobile Source Impacts

By far, the most significant project-related air quality concern is from the estimated 89,180 daily vehicle trips that will be generated at development buildout. For typical Southern California residential, commercial and recreational activity trips of 6.0 miles each (ARB, 1987), the project will generate around 535,080 vehicle miles traveled (VMT) each day. Because of the location of Palmdale relative to major employment centers of the region, longer commuting distances may increase the average trip length and thus increase the VMT by some unknown factor. Although such a traffic level constitutes only a small percentage of regional travel totals, the growth represented by the proposed development is nevertheless a material fraction of the regional automotive air pollution emissions burden.

Project-related vehicular air pollution emissions can be readily calculated using a land use emissions model developed by the California ARB entitled URBEMIS2. The model combines trip generation rates for commercial and residential uses with typical trip lengths for the SCAG planning area and generates a daily emissions profile (adjusted upward to reflect higher VMT estimates than assumed in Appendix C). Table 5, MOBILE SOURCE AIR POLLUTION BURDEN, summarizes calculated project emissions for the three m

Table 5

MOBILE SOURCE AIR POLLUTION BURDEN
(Pounds/Day)
Year 2010

	<u>Reactive Organics*</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>
Ritter Ranch	1,165	15,646	1,403
Other Cum. Growth	1,640	22,180	1,980
Ranch & Cum. Growth	2,805	37,826	3,383
Antelope Valley Total*	22,980	308,740	27,800
Ritter Ranch Share of Valley Total	5.1%	5.1%	5.0%
Cum Growth Share of Valley Total	7.1%	7.2%	7.1%
Ranch & Cumulative Growth Share of Valley	12.2%	12.3%	12.1%

* = Assuming 92% of total organic gases are reactive

** = Based on SCAG No. Los Angeles County growth projections

Source: Giroux & Associates (Appendix C).

vehicular emissions species for Ritter Ranch traffic, for cumulative area growth in the vicinity of Ritter Ranch, and for all Antelope Valley traffic source for a 2010 analysis year. Daily project-related vehicular pollution emissions total about 7.7 tons per day of carbon monoxide (CO) and around 0.7 tons each of reactive organic compounds (ROG and nitrogen oxides (NOx)). By its very scope (7,200 dwelling units and an estimated 692,000+ square feet of commercial uses); the project is thus a significant contributor to the regional transportation-related air emissions burden. The calculations do not take into account the reduction in vehicular emissions anticipated from the mandatory future conversion of significant portions of the travel fleet to methanol or other clean fuels.

This net emissions reduction per vehicle mile will reduce all entries in Table 5 proportionately such that the overall Ritter Ranch, cumulative growth and total Antelope Valley emissions will decline, but the relative percentage share of the sub-regional total created by this project and/or other nearby growth will remain as shown.

Ritter Ranch development will cause a significant increase in regional transportation-related emissions. Such a contribution should be viewed as inconsistent with the AQMP and by standards of significance identified previously, constitutes a significant air quality impact. The significance of Ritter Ranch travel air pollutant emissions derives from whether the project residents commute to jobs, shopping and services within the Antelope Valley, or if they drive longer distances back to the Los Angeles Basin. If a large fraction of Ritter Ranch residents are employed within the Antelope Valley, then project development is consistent with this air quality improvement objective. If, however, the project represents affordable single-family housing with long commutes to job centers as is happening in much of San Bernardino and Riverside Counties at this time, then the project's air quality impact is significant. Air quality is thus tied to economics and demographics. A decision by the Lead Agency for this EIR on air quality consistency requires a concurrent evaluation of projected employment growth. The SCAG Growth Management Plan calls for a growth of 170,700 housing units in North Los Angeles County between 1988 and 2010. The GMP also projects 93,700 new jobs from 1984 to 2010. Although the Ritter Ranch project would aggravate a regional housing surplus in the Antelope Valley, it provides 540 more jobs than necessary to offset the residential units, not including "indirect" jobs created by service and supply demands from project residents and commercial tenants (refer to Table 6, JOBS/HOUSING BALANCE ANALYSIS). Specifically for the North Los Angeles County Subregion (Ritter Ranch project area), the GMP projects an increase of 7,200 housing units and 2,268 new jobs between 1984 and 2010. (Refer to Table 6, JOBS/HOUSING

Table 6

BITTER RANCH JOBS/HOUSING BALANCE ANALYSIS

North Los Angeles County Subregion
 A Housing-Rich Subregion Impacted by a Project
 Providing
 7,200 New Dwelling Units and 2,268 New Jobs

<u>Item</u>	<u>Jobs</u>	<u>Step</u>	<u>Housing</u>	<u>Step</u>	<u>J/H Ratio</u>	<u>Step</u>
Base Year (1984)	32,700	(1)	46,100	(2)		
2010 Trend	126,400	(3)	235,600	(4)		
2010 Policy	160,800	(5)	222,600	(6)		
Increase to 2010 per Trend	93,700	(7)	189,500	(8)	.49	(11)
Increase to 2010 per Policy	128,100	(9)	176,500	(10)	.73	(12)

Step 13: Subtract "Trend Ratio" from "Policy Ratio" (Step 12 - Step 11)
 $[.49 - .73 = .24]$

Step 14: Increase in Housing Units Provided by the Project = 7,200

Step 15: Multiply Increase in Housing Units by Difference in "Trend" and "Policy" Ratios, i.e.,
 $[7,200 \times .24 = 1,728]$

Step 16: Increase in Jobs Provided by the Project = 2,268 (from Fiscal Impact Report)

Step 17: If Step 15 is Larger than Step 16, the difference is the number of jobs which should be associated with the Project. The positive difference of 540 (2,268 - 1,728) indicates that the project provides more jobs than necessary to maintain consistency with SCAG policy.

Source: Southern California Association of Governments.

BALANCE ANALYSIS). This may partially offset regional air quality impacts although project impacts are nonetheless assumed significant.

Other Annexation Areas

The Other Annexation Areas, estimated to generate 3,100 Average Daily Trips at worst-case, would not represent a significant incremental addition to the regional air pollution burden. Cumulatively, however, combined with the Ritter Ranch project, these emissions would represent a significant impact.

Local Air Quality

The concentration of additional traffic on local roadways may produce localized violations of air quality standards. To test for this possibility, maximum project and non-project traffic was combined within minimum dispersion conditions in a microscale air quality screening model based on the California line source pollution model CALINE4. Carbon monoxide (CO) was used as the indicator for any "hot spot" potential. For all project-impacted roadways, the maximum future hourly microscale CO impact for project traffic plus other area growth is seen in Table 7, CALINE4 ANALYSIS, to be 4.8 ppm above background on the most heavily congested section of Elizabeth Lake Road between 20th and 10th Streets West (the 3,100 Average Daily Trip increase from the Other Annexation Areas would not substantially change these figures). With future CO levels not expected to significantly change from the current hourly maximum background level of around 10 ppm, the combination of any local impacts plus background levels will not threaten the continued attainment of the 20 ppm California or 35 ppm federal hourly CO standards. The peak hourly 4.8 ppm impact on the sidewalk of Elizabeth Lake Road equates approximately to an 8-hour impact of 2.4 ppm when one to eight hour variations in off-peak to peak travel volumes and speeds and changes in wind and stability patterns are considered. Peak non-local background levels averaging 5 ppm over the last five years plus the 2.4 ppm local contribution remain under the state and federal 8-hour CO limit of 9 ppm. There are, therefore, no indications that implementation of the project will significantly affect air quality on a local scale along any area roadways.

Miscellaneous Impacts

Project-related energy demand that is met by burning fossil fuels and a variety of small growth-related sources will contribute additional air pollutant emissions to the basin burden. Such energy sources, particularly the reactive hydrocarbons that participate in the regional

Table 7

CALINE 4 ANALYSIS

(Hourly CO Concentrations (ppm) above non-local background -- Hourly Standard = 20 ppm)

<u>Roadway</u>	<u>Location (From/To)</u>	<u>Existing (1990)</u>	<u>Future (2010)</u>
Santa Fe Hills Drive	Elizabeth Lake Rd/25th St W	---	0.4
Elizabeth Lake Rd	West of Leona Valley	---	0.6
	Leona Valley/Bouquet Canyon Rd	0.2	1.7
	Bouquet Canyon Rd/Godde Hill Rd	0.5	0.7
	Godde Hill Rd/Santa Fe Hills Dr	0.5	0.5
	Santa Fe Hills Dr/Ranch Center Dr	0.2	0.4
	Ranch Center Dr/Bridge Rd	0.2	0.6
	Bridge Rd/25th St W	0.2	3.4
	25th St W/20th St W	0.2	2.6
	20th St W/10th St W	0.2	4.8
Palmdale Blvd	10th St W/Antelope Valley Fwy	0.7	2.1
City Ranch Rd	Ritter Ranch Rd/Ranch Center Dr	---	0.2
	Ranch Center Dr/Bridge Rd	---	0.6
	Bridge Rd/20th St W alignment	---	0.5
	20th St W alignment/Tierra Subida Ave	---	0.6
Avenue R	Tierra Subida Ave/Division St	0.1	1.1
Ritter Ranch Rd	Godde Hill Rd/City Ranch Rd	---	0.7
	S of Elizabeth Lake	---	1.0
	40th St W alignment/Ranch Center Dr	---	1.5
	Ranch Center Dr/Bridge Rd	---	1.8
	Bridge Rd/20th St W alignment	---	1.6
	20th St W alignment/Tierra Subida Ave	---	3.1
Avenue S	Tierra Subida Ave/Antelope Valley Freeway	0.3	1.3

Table 7 (Continued)

CALINE 4 ANALYSIS

(Hourly CO Concentrations (ppm) above non-local background -- Hourly Standard = 20 ppm)

<u>Roadway</u>	<u>Location (From/To)</u>	<u>Existing (1990)</u>	<u>Future (2010)</u>
Bouquet Canyon Rd	Elizabeth Lake Rd/Ritter Ranch Rd	0.1	0.2
	W of City Thrift	0.1	0.2
Godde Hill Rd	60th St West/Elizabeth Lake Rd	0.2	1.2
Ranch Center Dr	Elizabeth Lake Rd/City Ranch Rd	---	1.6
	City Ranch Rd/Ritter Ranch Rd	---	0.6
Bridge Rd	Elizabeth Lake Rd/City Ranch Rd	---	1.6
	City Ranch Rd/Ritter Ranch Rd	---	0.7
25 St West	Ave P-8/Elizabeth Lake Rd	0.1	1.2
20 St West	Ave P-8/Elizabeth Lake Rd	---	1.3
10 St West	Ave P-8/Palmdale Blvd.	1.6	3.6
Tierra Subida Ave	Palmdale Blvd/S of Palmdale Blvd	0.3	0.6
	S of Palmdale Blvd/Ave R	0.3	0.9
	Ave R/Ave S	0.1	1.0
	Ave S/Barrel Springs Rd	0.1	0.5

- = Roadway not yet built

Source: Giroux & Associates (Appendix C).

smog formation process, are much less than the vehicular sources previously shown in Table 5, MOBILE SOURCE AIR POLLUTION BURDEN. Any corresponding ambient air quality impacts are similarly minimal in comparison to mobile source emissions. However, the emissions for Nitrogen Oxides (NO_x) from natural gas combustion exceed the SCAQMD "Insignificance Threshold" and therefore represent a significant impact to air quality in the basins.

Total project emissions were calculated by combining mobile source emissions with an estimate of emissions from daily energy consumption to generate a project total at buildout. Table 8, COMPOSITE DAILY MOBILE AND STATIONARY SOURCE EMISSIONS, summarizes the composite project emissions that emphasizes the relative roles of mobile versus stationary sources.

Various project sources and the routine operation and maintenance of residential and commercial land uses will add a variety of small emissions to the total project contribution. These sources include:

- Petroleum product storage and dispensing (gasoline, cleaning fluids);
- Paints, thinners and solvents used in construction and maintenance;
- Asphalt and roofing tar emissions;
- Sand and gravel, aggregates and concrete for building materials;
- Utility equipment used in landscape maintenance of residential, recreational and commercial uses;
- Increased non-automotive travel (trains, buses and airplanes).

Most of these sources are extremely small, even on a cumulative basis, but they all are evidence of the fact that increased growth results in increased air pollution from a variety of individually small sources.

Offsite Infrastructure Improvements

Regional infrastructure improvements provided with the Amargosa Creek Improvement Project will require significant construction vehicle activity and grading. The dust and construction vehicle emission impacts can be mitigated to less than significant levels. The analyses in this EIR assume full offsite road improvements and future traffic levels, allowing for the proposed regional improvements. The roadway improvements will accommodate increased traffic volumes expected to be generated by the proposed Ritter Ranch project

Table 8

COMPOSITE DAILY MOBILE AND STATIONARY SOURCE EMISSIONS
(Pounds/Day)

	<u>Daily Emissions (lb/day)</u>		
	<u>ROG</u>	<u>CO</u>	<u>NOx</u>
Mobile Sources	1,165.0	15,646.0	1,403.0
Electrical Consumption	1.4	28.4	163.1
Natural Gas Combustion	<u>8.4</u>	<u>31.7</u>	<u>129.4</u>
Total	1,174.8	15,706.1	1,695.5
AQMD Insignificance Threshold	75	550	100

Source: Giroux & Associates (Appendix C) and RBF.

and other surrounding proposed development. As a result of this increased traffic, local pollution load will increase. A broader discussion of the Amargosa Creek Improvement Project impacts is provided in that project's EIR. However, the impacts associated with these offsite improvements will contribute to cumulatively significant impacts to air quality anticipated in the area.

Park and Ride

After consulting with Commuter Transportation Services, a criterion for provision of park-and-ride facilities was established. At a minimum, the project developer should provide one park-and-ride space for every 10 dwelling units constructed. The developers of the southwest area should construct a park-and-ride facility on the west side of the 14 Freeway within a half-mile of the Avenue S interchange. The facility should provide approximately 400 spaces and should be constructed prior to occupancy of units within any of the developments. The developers would be responsible for the complete development of the park-and-ride facility including acquisition, design, agency reviews and approvals, utilities, and construction. Upon acceptance of the completed facility, it would be deeded over to the City. The park-and-ride facility would serve to mitigate cumulative impacts of a total of 4,000 units. Each participating developer would be credited in proportion to their contribution to the cost of the facility. All dwelling units constructed beyond the number credited would then be subject to payment of a per unit fee. This fee would be used for "unspecified" transportation demand management programs which would be implemented by the City.

These could include transit alternatives or traffic engineering projects appropriate as commuter requirements change over time. The fee should be set at \$250 per dwelling unit (subject to an annual increase based on Los Angeles Area (CPI) based on the estimated cost of construction of parking lots which is presently \$2,500 per space).

MITIGATION MEASURES

- *#21. To mitigate potential dust generation impacts, the project will comply with State, County and City dust control regulations. These regulations are intended to provide sufficient protection so as to prevent the soil from being eroded by wind, creating dust, or blowing onto a public road or roads or other public or private property.

- *#22. In addition to watering prior to and during grading (as discussed in SCAQMD Rule 403), ~~the application of water and chemical dust retardants that solidify loose soils interim paving~~ shall be implemented for construction vehicle access, ~~as directed by the City Engineer, by applying materials to the soil surface that solidify loose soil, when directed by the City Engineer.~~
- *#23. Grading activity shall be suspended when local winds exceed 30 miles per hour. To validate wind velocities and/or rainfall amounts, the installation of a minimum of two remote weather stations will be required at locations determined by the City Engineer.
- *#24. Heavy construction equipment shall use low sulfur fuel (0.05% by weight) and shall be properly tuned and maintained to reduce emissions.
- *#25. Construction activities shall be phased and scheduled to avoid high ozone days, ~~to the extent feasible.~~
- *#26. Construction will be discontinued during second stage smog alerts.
- *#27. The applicant shall, as required by the Planning Department and the City of Palmdale's proposed Air Quality Element, implement applicable Tier I Control Measures contained in the Final 1989 AQMP, as may be subsequently amended. ~~Additionally, the Best Available Control Technology Guidelines, published by SCAQMD, shall be used.~~ As project buildout will occur over a 20-year period, subsequent phases/approvals will be held to Tier II and Tier III measures ~~which are implemented as mandatory AQMD Rules and Regulations applicable to the project phase, as they are implemented (such as through AQMD Rules and Regulations).~~ General measures which shall be applied for the development include:
- a. Encourage the use of alternative transportation modes by promoting public transit usage and providing secure bicycle facilities. The applicant will implement the trails system indicated in the Specific Plan including pedestrian, bicycle and equestrian facilities. The applicant shall distribute educational material at the time of occupancy to all businesses and homeowners regarding the availability of public transit, ridesharing and other alternative transit methods and the location of bicycle routes in the project vicinity. In addition, the educational material, as reviewed and approved by

the City of Palmdale. Planning Department shall describe the available methods for reducing energy consumption.

- b. Provide mass transit accommodations such as bus turnout lanes and bus shelters if determined necessary by the City Traffic Engineer. As final plans are developed, these features should be considered.
 - c. The applicant shall contribute a pro-rata share toward acquisition and construction of a Park & Ride facility in the Avenue S/SR-14 vicinity. This shall include design and construction of one space per ten dwelling units (up to 400 total spaces). ~~or \$250 per dwelling unit. The facility must be completed. This mitigation measure shall be satisfied prior to occupancy of any fifty percent (50%) of the total dwelling units approved for the project as a whole.~~
 - d. ~~Encourage the placement of dwelling units to take full advantage of solar energy for natural heating and cooling as recommended in Section 7.5.1.6 of the Specific Plan in order to reduce the use of electricity and natural gas within the project area.~~
 - e. ~~The applicant shall utilize Best Available Control Technology to control volatile organic compounds and Toxic Air Contaminants as required by SCAQMD Rules and Regulations. The Best Available Control Technology Guidelines, published by SCAQMD, shall be used to assess compliance with this mitigation measure.~~
- *#28. Prior to subsequent approvals, energy conservation practices, as required by the Subdivision Map Act, Building Energy Efficiency Standards (California Energy Commission), and state and local laws, shall be incorporated into the design of the project to have the secondary effect of limiting stationary source pollutants both on and offsite.
- ~~#29. All phases of the project shall comply with applicable rules and regulations of the SCAQMD.~~

- *#30. Projects that exceed SCAQMD threshold levels shall contribute to a the Traffic mitigation programs imposed on the development in effect at such time building permits are issued for the project, and each part thereof.

UNAVOIDABLE SIGNIFICANT IMPACTS

Development of the Ritter Ranch area will have a significant impact on air quality because of its duration of buildout and magnitude of the proposed land uses. In addition, the development of Ritter Ranch in combination with other pending or approved projects will have a significant cumulative air quality impact. It is doubtful that a major development can have its air quality impact reduced to a complete level of insignificance given the reliance on the automobile as the primary means of travel, but a comprehensive emissions minimization program structured within an air quality element can have a measurable benefit for the Ritter Ranch area and any other development's air quality impact.

C. WATER RESOURCES

The following is based on a Drainage Concept Study prepared by the Keith Companies North Counties, Inc. in November 1989 (refer to Appendix D of this EIR). In addition, Robert Bein William Frost & Associates utilized the Ritter Ranch Specific Plan and the Ritter Ranch and Sleepy Valley U.S.G.S. Topographic Maps. This section provides a discussion of potential impacts and mitigation measures relating to drainage, flood control and water quality for the project (water supply is addressed in Section IV.K, PUBLIC SERVICES AND UTILITIES).

EXISTING CONDITIONS

Drainage

The project site falls within two distinct watershed basins. Most of the property area is tributary to the Antelope Valley Drainage Basin which is traversed by natural water courses originating within the site and flowing northerly and easterly from the major ridgeline extending across the site. The major on-site drainage basin is the headwaters of Anaverde Creek. Amargosa Creek impacts the northern portion of the project area and it flows easterly along Elizabeth Lake Road. Its headwaters are located westerly of the project boundary. The total Antelope Valley Basin System will drain 8,190 acres of the Ritter Ranch Specific Plan area (approximately 4,060 acres into Anaverde creek and 4,130 acres into Amargosa Creek). The remaining 2,435 acres will drain southward off-site (into the Santa Clara River Basin). Currently, flooding is a hazard along both Anaverde and Amargosa Creeks. Exhibit 11, EXISTING DRAINAGE, indicates existing watershed/drainage areas and flood zone areas as defined on Flood Insurance Rate Maps.

The Ritter Ranch area is located within the County of Los Angeles but presently lies outside of the Corporate boundaries of the City of Palmdale. The County of Los Angeles has adopted a Comprehensive Plan of Flood Control and Water Conservation for the Antelope Valley basin which provides a drainage plan that includes most of the Ritter Ranch area. The plan is covered in a report entitled "Antelope Valley Final Report of the Comprehensive Plan of Flood Control and Water Conservation," dated June 1987, which indicates that the Ritter Ranch lies within the "Flood Plain Management" area. Flood Plain Management is defined as a non-structural solution to flood protection and is accomplished by locating future development outside of flood prone areas.

The existing County Master Plan indicates that, where the natural watercourses have readily defined flood hazard zones, development can be restricted to flood-free areas. Because of proposed annexation of Ritter Ranch to the City of Palmdale, all planning and design of flood control facilities for this project area will be in conformance with the City of Palmdale Drainage Management Plan, dated March 1989 and the City of Palmdale Drainage Master Plan, dated October 1988. However, currently, these City Plans do not consider the Ritter Ranch area. Therefore, the plans would need to be amended to show the improvements proposed for the area.

Hydrology studies have been performed for the Antelope Valley Basin portion of the Ritter Ranch Specific Plan area in accordance with the Los Angeles County Department of Public Works Hydrology Manual using the Modified Rational Method based upon a 50 year capital storm. Hydrologic computations were made using the computer program F0601. A value of 10% impervious surfaces was used in these studies (over 70% of the project area will remain undeveloped). The remaining offsite area tributary to that portion of Amargosa Creek impacting the project area is designated as open space or non-urban according to the Antelope Valley Areawide General Plan with a density of 0.05 to 1.0 dwelling units per acre. Because of the steep terrain and seismic constraints, a majority of this area is not developable.

Flood Insurance Rate Map

Exhibit 11, EXISTING DRAINAGE, indicates the area which is within Zone A, as shown on the Flood Insurance Rate Maps (FIRM). Zone A is defined as an area of 100-year flood (as determined by FEMA) with base flood elevations and flood hazard factors not determined. Upon construction of channel improvements, the zone designation may be modified to a less hazardous designation (upon construction of onsite and offsite regional improvements, the 100-year flood is expected to be confined primarily to regional flood control basins and areas immediately adjacent to stream channels).

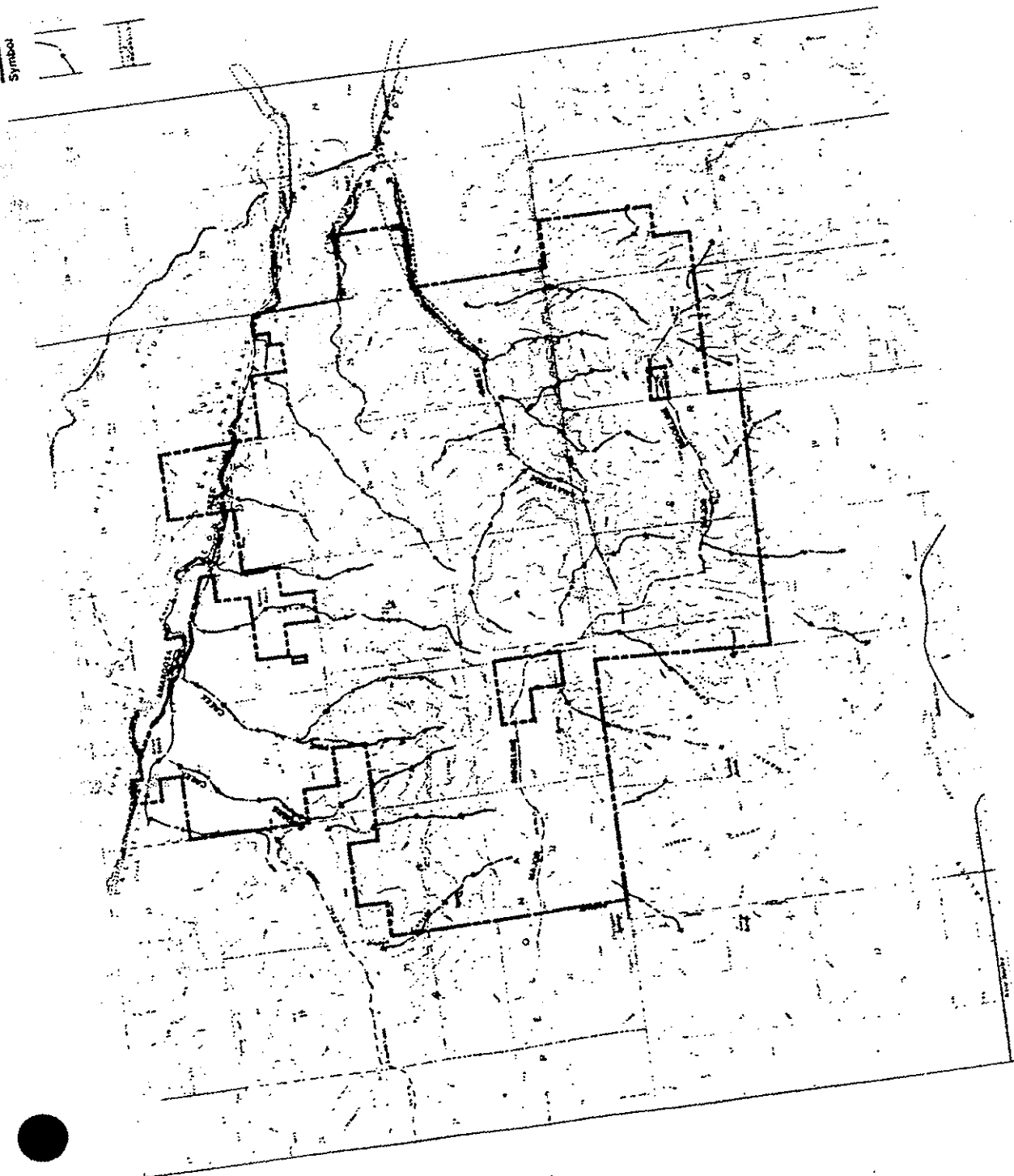
Water Quality

The project lies within the Antelope Valley Planning Area of the South Lahontan Basin. The direction of groundwater flow beneath the site and its vicinity is to the northeast. Recharge to the basin is supplied mainly by precipitation, surface water runoff from surrounding mountains, and reclaimed water from the Los Angeles County Sanitation

Existing Drainage

Extension

Symbol	Description
	USGS Blue-line Creeks
	FIRM 100 Year Flood Zone



Pitter Ranch Specific Plan

District No. 20 Sewer Treatment Plant is used for irrigation¹. Currently, groundwater extraction constitutes the majority of discharge from the Basin. In most of the Antelope Valley, groundwater from the principal aquifer is suitable for domestic irrigation and most industrial uses. Water quality objectives for Lake Palmdale (which is within the Antelope Valley Planning Area of the South Lahontan Basin) are as follows²:

Total Dissolved Solids	460 mg/l
Chlorine	50 mg/l
Sulphate	100 mg/l
Fluoride	0.80 mg/l
Boron	0.13 mg/l

IMPACTS

Drainage

Residential, commercial, and school development of the Ritter Ranch Specific Plan area has the potential to substantially increase off-site flood hazards and site run-off. Such development increases the area of coverage by impervious surfaces on a site, and therefore increases the amount of storm runoff generated by the site. Without adequate mitigation flood hazards could result in significant property damage and loss of life. Significant modification of onsite drainages will be required (see Section IV.A, EARTH RESOURCES). Adherence to the Storm Drain Plan shown on Exhibit 12 will significantly reduce the impacts (the Storm Drain Plan requires that all regional and major onsite drainage facilities be designed to protect onsite residential and commercial uses in accordance with the City's Engineering Design Standards.)

Project development will be required to maintain or reduce existing downstream flows. It should be noted that the proposed onsite detention basins, debris basins and channel improvements, in combination with regional Amargosa Creek improvements (as part of the Amargosa Creek Improvement Project in process) will substantially reduce downstream flows below existing levels within that drainage basin (see Exhibit 12, STORM DRAIN DRAINAGE PLAN). No significant flood hazards are expected following implementation

¹Conversation with Henry Roedigor, September 5, 1990

²Water Quality Control Plan Report - South Lahontan Basin (6B). State Water Resources Control Board. Table 4.1, p.I-4-13.

of required mitigation measures. It should be noted that the Specific Plan permits "cross-lot drainage" within the equestrian estate community, although this is more of a land use issue (see Section IV.G, LAND USE).

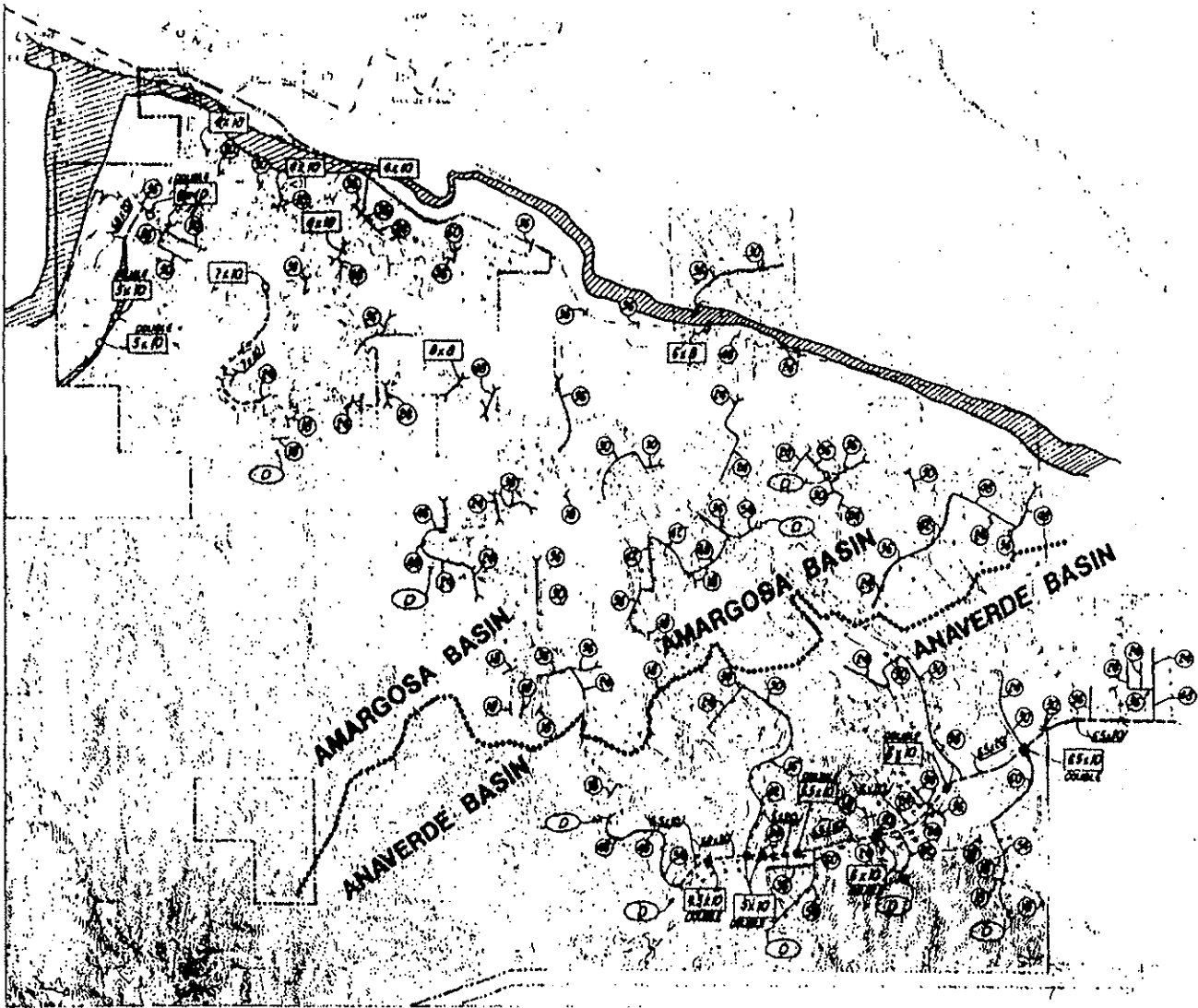
The project also lies within the Anaverde Creek Drainage basin. The City is currently in the process of developing a regional drainage solution for this basin along the lines of that developed for the Amargosa Creek basin. The flood control facilities proposed in the Specific Plan for this basin may be modified in the future if additional flood water detention or channelization is determined to be appropriate for the regional solution that may be proposed.

According to the Flood Insurance Rate Map (FIRM) and as outlined in Exhibit 11, EXISTING DRAINAGE, Planning Area 1 of the Ritter Ranch Specific Plan is located adjacent to Amargosa Creek which is part of a 100-year flood zone. Planning Area 1 includes the development of an 18-hole golf course, a wetland/flood control basin area, an equestrian estate community with minimum 2-acre lots, and single family detached golf course oriented homes. To reduce the impacts of flooding hazards, the golf course will be designed as a flood control facility to retain flood water and reduce the peak flow flood discharge and sediment (commercial and residential areas will not be located in the FEMA 100-year flood plain with improvements). Additional regional flood control measures are proposed as part of the Amargosa Creek Improvement Project (such as the major flood control basin proposed in Planning Unit 1C and 1D), which is presently in the environmental review process. This basin and golf course will be landscaped and used as a combined flood control and recreational facility. Portions of the golf course will be located within the area presently designated for the regional flood control basin, which will be allowed for in hydrology design plans for the basin. Alluvial fans pose potential flood hazards (property damage and/or loss of life) due to the unpredictable storm flow paths, the instability of the ground surface, and the large quantity of eroded sediments which are carried within the runoff. To reduce these impacts, structural improvements will be required as shown on Exhibit 12 or as otherwise required by the City Engineer based upon review or analysis of final improvement plans for discrete portions of the development.

Proposed Drainage Facilities

All of the natural watercourses in the area are relatively steep, varying from six percent (6%) to over twenty-five percent (25%) slopes in the canyon areas and from one percent (1%) to five percent (5%) in the alluvial fan area. The steep slopes result in high flow

Symbo



Ritter Ranch Specific Plan

SOURCE: The Keith Companies

velocities and erosive conditions. The Drainage Plan shows the proposed drainage facilities for the Antelope Valley Basin area of Ritter Ranch.

For well-defined natural canyon channels, the "planned flow path" approach is used. The approach does not remove the flood hazard to adjoining land as would flood control improvements. Therefore, adjoining development within Ritter Ranch must be designed to ensure that it is free of flood hazard according to the City's Engineering Design Standards. Some erosion control improvements may be required to protect roads adjacent to natural channels. Check dams may be incorporated in the flatter reaches of natural canyon channels where slopes are eight percent (8%) or less to mitigate erosive velocities. Check dams are more cost effective in narrow canyons. Check dams may also be considered for use in improved channels to reduce velocities.

Where channel slopes are four percent (4%) or less it becomes practical to provide structural improvements. In lined channels or pipes with slopes greater than four percent (4%), velocities become excessive.

Amargosa Creek meanders in and out of the site at several locations as a natural channel with a slope of approximately one percent (1%). Its initial watershed area lies to the west of the project site. The creek flows easterly and has developed a bulked peak flow of 17,190 cubic feet per second (cfs) when it enters the westerly site boundary. It is proposed to use the existing Amargosa Creek through the project site where possible incorporating naturalized landscaped riparian area (proposed regional Amargosa Creek Improvement Project facilities are estimated to reduce the 50-year Los Angeles County Capital Storm peak flow from over 20,000 cfs to approximately 6,200 cfs east of the project at 20th Street West).

The major backbone drainage facilities will consist of the following:

Natural unlined channels with limited bank protection and check dams (as required) are used in relatively undeveloped areas with steep canyon topography.

Improved unlined channels utilized in the major floodways of flatter topographies, employ levee bank protection with a natural bottom. A lined low-flow channel is incorporated within the main channel and check dams may also be used to reduce velocity.

Trapezoidal concrete-lined channels used for routing flood flows through developed areas where land use restricts the channel widths and where peak flow velocities are erosive.

Vertical wall concrete-lined channels used interchangeably with trapezoidal channels, vertical wall channels allow for decreased channel widths where higher land use densities are desired. In certain areas a top may also be placed on the channel for greater land utilization (reinforced concrete box channel).

Culverts may be pipes or reinforced concrete boxes and are used at roadway intersections for open channel crossings.

Bridges are used for roadway crossings of Amargosa Creek because of its larger waterway area requirements.

Debris basins have been considered at the higher elevations within the study area where development is minimal and debris and erosion are anticipated to be a problem. The basins should be located where the natural topography facilitates such use and a significant basin capacity is available. Debris basins allow a reduction of the required size of downstream facilities through the elimination of the requirements for bulked flow.

Onsite flood control basin facilities will be incorporated at strategic locations along various major watercourses to regulate and reduce the peak flow of a capital storm to a lower value, thereby reducing the size requirements for downstream drainage facilities. More precise location of flood control facilities will be determined by subsequent site design and coordination with the City of Palmdale drainage plans, although several basins are planned in tributary drainages of Anaverde and Amargosa Creeks. Proposed development will create the need for onsite flood control to mitigate the short duration peak flow increase created by increased development activities. Opportunities exist within the project area for flood control basins, which to be most effective should be located at or near the canyon mouths. Since runoff into the basins, which to be most effective should be located at or near the canyon mouths. Since runoff into the basins will be from undeveloped areas with significant levels of debris production, the basins must be designed to accommodate debris volumes in addition to clear water detention, unless a debris basin has been constructed upstream. The flood control basin will not reduce the total volume of

runoff but will extend the time over which the total storm volume will discharge. Flood control basins can also serve as joint-use facilities to be used as parks, playgrounds and sports fields with resulting benefits (as proposed with the golf course/flood control basin area in Planning Area 1), however, most local flood control basins are fenced to limit access for maintenance only.

Other Annexation Areas

Potential future development in the 309-acre portion of the Other Annexation Areas would result in increased storm runoff, impacting Amargosa Creek to the north. In the absence of proposed development applications, design of adequate drainage systems and specific flood protection measures have not been determined. However, as future development applications are received, the project developers will be required, by the City's Drainage Management Plan, to develop and provide necessary drainage facilities. The area has been included in ultimate development assumptions for the Amargosa Creek Improvement Project regional facilities. As with the Ritter Ranch project, future developers will have to include their proposed flood control improvements in the City of Palmdale Drainage Management Plan and Drainage Master Plan.

Water Quality

Implementation of the proposed project will result in an increase in the quantities of urban pollutants that enter the local drainages. The increase in automobile traffic as a result of the project will produce pollutants such as hydrocarbon fuels, lubricants, and rubber. In addition, the proposed land uses will generate more traffic which will result in more automobile related pollutants than surrounding residential uses. Also, improper maintenance of landscaping can introduce fertilizers and pesticides into local water drainages. Development of the golf course in Ritter Ranch Planning Area 1 will require the use of fertilizers and pesticides which may significantly impact local water drainages and downstream wetland areas, in combination with typical urban runoff pollutants. These impacts can be reduced to a less than significant level through transportation management and proper landscaping design and maintenance methods (see required mitigation measures and Section IV.D, BIOLOGICAL RESOURCES). In addition, a portion of the urban pollutants are expected to be absorbed by downstream wetland plants (which benefit from nitrogen and phosphates, but do not benefit from oils, heavy metals, etc.) or settle out in flood control basins.

The Ritter Ranch project proposes various commercial uses and an equestrian center, and may include a Water Reclamation Plant (in Planning Area 4H). Each of these uses pose water quality concerns, which, if not properly controlled, could result in significant surface water quality impacts. Commercial use of various chemicals (particularly for support of retail uses such as a dry cleaner) will be required to comply with strict local, state and federal regulations. The use of fertilizers and pesticides, and the production and/or composting of horse manure, also represents a potential water quality concern, particularly in the event of a storm. The Water Reclamation Plant, as its precise location, design and nature have not yet been determined, cannot be adequately addressed in this EIR. However, plant approval will be subject to a Conditional Use Permit and to meeting water quality standards as determined by the Regional Water Quality Control Board and any other regulatory agencies. With implementation of mitigation measures below and requirements from applicable regulatory agencies, no significant water quality impacts are anticipated for development of the Ritter Ranch Specific Plan area.

Other Annexation Areas

Specific water quality impacts can not be analyzed at this time for the 309-acre Annexation Area portion as development plans are unavailable. However, it is likely that development of the Annexation Areas under the proposed one dwelling unit per acre zoning will result in a small amount of urban pollutants such as oil, rubber, fertilizers and pesticides that enter the local drainages. Grading during construction may result in short-term increases in sediment load of the runoff. Without mitigation, these impacts may be considered significant. However, water quality impacts are anticipated to be reduced to less than significant levels through implementation of the required Water Quality Control Plan.

Offsite Infrastructure Improvements

The Amargosa Creek Improvement Project includes regional facility construction needed for this project and others. These regional improvements will require drainage modifications which will provide critical flood protection for the Leona Valley and downstream Amargosa Creek Floodplain.

MITIGATION MEASURES

Drainage

- *#31. All drainage facilities shall be designed and constructed in accordance with the City of Palmdale Drainage Master Plan and the Los Angeles County Hydrology Manual to the satisfaction of the City Engineer. Local facilities will be installed concurrently with or immediately after completion of grading activities, and in some cases, as approved by the City Engineer, interim facilities may be provided. Each facility shall be completed prior to issuance of occupancy permits for a development application for the portion of the project which is served by the facility. Regional facilities shall be constructed pursuant to the City Engineer's requirements and shall be completed prior to issuance of occupancy permits for a development application.
- #32. All regional and major on-site facilities will be designed to accommodate a 50-year Los Angeles County Capital Flood with bulking and freeboard included as required by the City Engineer.
- #33. All local drainage facilities shall be designed to accommodate a 25 year or a 10 year storm in accordance with the City Engineering Design standards. In general:
- 1) Peak runoff from a 25-year storm will be contained within the street right-of-way.
 - 2) Peak runoff from a 10-year storm will be contained at or below the street top of curbs.
- #34. The lowest finish floor elevation of all habitable structures shall be a minimum of one-foot above the maximum water level resulting from the applicable capital flood.
- #35. Flood Control basin facilities will be incorporated at strategic locations, as shown on Exhibit 12, along major watercourses to regulate and reduce the peak flow of a capital storm to a lower value thereby reducing the size requirements for downstream drainage facilities. Flood Control basin design shall incorporate adequate peak attenuation and storage features and safety provisions (fencing, signage), to the satisfaction of the City Engineer.

*#36. The applicant shall submit a water quality control plan for review and approval by the City Engineer and the Director of Planning, prior to issuance of grading permits. This plan shall be reviewed by the Regional Water Quality Control Board for their review and comment. The plan shall indicate specific means of reducing urban pollutants and sedimentation and shall comply with the provisions of any National Pollution Discharge Elimination System permit requirements that may be required by other regulatory agencies including but not limited to the following:

- a. Incorporation of measures identified in the required Erosion Control Plan.
- b. Surplus or waste material from construction shall not be placed in drainage ways or within the 50-year Los Angeles County Capital Storm floodplain of surface waters.
- c. All loose piles of soil, silt, clay, sand, debris, or other earthen materials shall be protected in a reasonable manner to eliminate any discharge to waters of the State.
- d. Dewatering shall be done in a manner so as to eliminate the discharge of earthen material from the site.
- e. All disturbed areas shall be stabilized by appropriate soil stabilization measures by October 15th of each year.
- f. All work performed between October 15th and May 1st of each year shall be conducted in such a manner that the project can be winterized within 48 hours.
- g. All nonconstruction areas shall be restricted by fencing, signage or other means to prevent unnecessary disturbance.
- h. During construction, temporary gravel or sandbag dikes shall be used as necessary to prevent discharge of earthen materials from the site during periods of precipitation or runoff.
- i. Stabilizing agents such as straw, wood chips and/or hydroseeding shall be used during the interim period after grading in order to strengthen slopes while

ground cover takes hold in accordance with City's Engineering Design Standards.

- j. Impervious areas shall be constructed with infiltration trenches along the downhill edges to dispose of all drainage emanating from them.
- k. Infiltration trenches shall be constructed on the downgradient side of all structural drip lines.
- l. Revegetated areas shall be continually maintained in order to assure adequate growth and root development.
- m. Physical erosion control facilities shall be placed on a routine maintenance and inspection program to provide continued erosion control integrity.
- n. Where construction activities involve the crossing and/or alteration of a stream channel, such activities should occur only after obtaining a 404 Permit (Army Corps of Engineers) and a 1601/1603 Agreement (California Department of Fish and Game), as necessary.
- o. Routine cleaning of manholes and catch basins shall be performed to remove sediment and debris.
- p. Control of washdown drainage from commercial uses shall be enforced in accordance with all waste discharge regulations and/or provisions.
- q. Information reviewed and approved by the City Attorney, regarding the disposal of waste oil/grease, pesticide containers and other hazardous materials shall be provided to new businesses and homeowners at the time of occupancy.
- r. Controlled use of pesticides and fertilizers within common areas including the golf course shall be enforced through provisions in the Landscape Plan, including frequency and type of fertilizers/pesticides to be used, and application by qualified persons. For the golf course (which would drain into a proposed wetland mitigation area), special consideration should be given to use of slow release fertilizers and contact herbicides, prohibition of fungicides

and broad spectrum insecticides, and the suppression of mosquito populations using bacterial insecticides or light oils instead of chemical agents.

UNAVOIDABLE SIGNIFICANT IMPACTS

Implementation of the proposed project will significantly alter the existing drainage patterns on the project site. No significant flood hazards are anticipated to occur with implementation of mitigation measures. Mitigation is anticipated to reduce water quality impacts to less than significant levels.

D. BIOLOGICAL RESOURCES

The information contained in this section was obtained from the site Biological Assessments prepared by Pacific Southwest Biological Services, Inc. for Robert Bein, William Frost & Associates on May 16, 1990 (report contained in Appendix E), in addition to a prior biological survey prepared by Ecological Research Services in 1989 and the Mojave Ground Squirrel Survey prepared by C. Robert Feldmeth and Associates in June, 1990.

The botanical portion of the Ritter Ranch Survey was performed by Craig H. Reiser and R. Mitchel Beauchamp and the zoological portion by Daniel J. Groul. The assessments took place on May 15, 16 and 17, 1990 between the hours of 7:00 am and 10:00 pm. The evaluation involved driving the site and walking through various habitats to evaluate the floral and fauna diversity.

The Ritter Ranch site had been previously surveyed for biological resources by ERS (1989). The biological survey report document contains a mapping of the vegetation, discussion of vegetation associations and the animals found with them, as well as some brief assessment of sensitivities.

Prior biological surveys of the immediate region were also examined to assess sensitive resources known from the vicinity of the site.

EXISTING CONDITIONS

Vegetation and Flora

The project site occupies a major portion of the eastern end of the Sierra Pelona, a minor Transverse Range associated with the San Andreas Fault Zone which passes through the northern portion of the project area. Elevations on the site range from 2,830 feet at the northeastern corner along Amargosa Creek to 5,247 feet at the top of Sierra Pelona. The site has slopes which drain into either the Anaverde Creek in the south and central portions of the site or the Amargosa Creek which flows through the northern portion of the site (a relatively small area along the Sierra Pelona ridgeline drains into the Santa Clara River).

The current survey of the Ritter Ranch site revealed 276 plant taxa, of which 38 are non-native (refer to Table 9, FLORAL CHECKLIST OF THE RITTER RANCH SPECIFIC PLAN AREA). This total represents about 15% of the floral diversity known for Los

Angeles County. Due to the low level of rainfall for the year, this floral listing may only represent about 85% of the possible site flora.

The vegetation survey conducted by ERS in 1989 was verified to be accurate in the current survey. The ERS report analyzed the vegetative communities of the property and described them using Holland's (1986) "Preliminary Descriptions of the Terrestrial Natural Communities of California", as well as using more definitive names to reflect the associations on the site. According to the ERS Survey, the vegetation present on the Ritter Ranch property consists of Shrublands, Woodlands and Ruderal Areas. Five different community types of shrublands were identified including California Buckwheat Scrub, Big Sagebrush Scrub, Semi-Desert Chaparral, Chamise Chaparral, and Turbinella Oak Chaparral (see Exhibit 13, VEGETATION). Plant communities on other properties within the annexation area are similar to those described for Ritter Ranch.

California Buckwheat Scrub. This community occurs on south-facing slopes and ridges of the Ritter Ranch site and is dominated by California Buckwheat. Buckwheat plants occur as homogeneous stands interspersed with grasses such as Red Brome, Slender Oat, Melica and Spear Grass. Important species present in this community include: Chaparral Yucca, Wire Lettuce, White Sage, Heather Golden Brush, Chia, Beaver-tail Cactus, Mormon Tea, Yellow Yarrow, Bush Senecio, Corethrogyne, Fiddleneck, and Yerba Santa.

Big Sagebrush Scrub. Big Sagebrush Scrub occurs on north-facing slopes of the Ritter Ranch site above 300 feet and mixes with oak woodland and chaparral. The dominant plant of this community is Great Basin Sagebrush with Rabbitbrush also present.

Semi-Desert Chaparral. This vegetative community forms moderately dense coverage on north-facing slopes of Ritter Ranch above Chamise Chaparral and below Turbinella Oak Chaparral. The dominant species of this vegetation type include Big-berry Manzanita, Desert Ceanothus, Mountain Mahogany, Flannel Bush, Desert Scrub Oak, Great Basin Sagebrush, Chamise, Squawbush, and Hollyleaf Redberry.

Chamise Chaparral. The Chamise Chaparral community is also present on north-facing slopes of Ritter Ranch, generally below semi-desert chaparral and is dominated by nearly pure stands of Chamise. Other species present include Mountain Mahogany and Desert Ceanothus.

TABLE 9
FLORAL CHECKLIST OF THE RITTER RANCH SPECIFIC PLAN AREA

HABITAT	A = Annual Grassland D = Inland Sage Scrub R = Rabbit-brush Scrub/Great Basin Sage Scrub X = Disturbed Residential	C = Chaparral/Semi-Desert & Chamise/Oak J = Juniper/Joshua Tree Woodland W = Cottonwood/Willow Riparian
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CRYPTOGAMS	HABITAT
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FERNS

Adiantaceae

<i>Cheilanthes covillei</i> Maxon. Coville's Lipfern	C
<i>Pellaea mucronata</i> (D.C. Eaton) D.C. Eaton. Bird's Foot Cliff-Brake	C

GYMNOSPERMS

Cupressaceae

<i>Juniperus californica</i> Carr. Juniper	J
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Ephedraceae - Ephedra Family

<i>Ephedra nevadensis</i> Wats.	DJ
<i>Ephedra viridis</i> Cov.	DJ

Pinaceae

<i>Pinus jeffreyi</i> Grev. & Balf. in A. Murr.	C
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DICOTYLEDONS

Adoxaceae - Adoxus Family

<i>Sambucus mexicana</i> Presl ex D.C. Desert Elderberry	C
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Amaranthaceae - Amaranth Family

* <i>Amaranthus blitoides</i> S. Wats.	A
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Anacardiaceae - Sumac Family

<i>Rhus trilobata</i> Nutt.	CJ
<i>Toxicodendron radicans</i> ssp. <i>diversilobum</i> (T. & G.) Thorne. Poison-Oak	C

Apiaceae - Carrot Family

<i>Bowlesia incana</i> R. & P.	C,D
<i>Lomatium mohavense</i> (Coul. & Rose) Coul. & Rose	C
<i>Osmorhiza brachypoda</i> Torr. ex Durand.	C
<i>Perideridia pringlei</i> (Coul. & Rose) Nels. & Macb.	C
<i>Tauschia arguta</i> (T & G.) MacBr.	C,D

Asclepiadaceae - Milkweed Family

<i>Asclepias fascicularis</i> Dcne. in A. D.C. Narrow-Leaf Milkweed	A,W
<i>Asclepias vestita</i> H. & A.	A

FLORAL CHECKLIST OF THE RITTER RANCH SPECIFIC PLAN AREA
(CONTINUED)

	<u>HABITAT</u>
Asteraceae - Sunflower Family	
<i>Agoseris grandiflora</i> (Nutt.) Greene.	C
<i>Ambrosia acanthicarpa</i> Hook. Annual Bur-Weed	D
<i>Ambrosia psilostachya</i> var. <i>californica</i> (Rydb.) Blake. Ragweed	W
<i>Artemisia douglasiana</i> Bess. in Hook. Mugwort	W
<i>Artemisia dracunculus</i> L. Dragon Sagewort	W
<i>Artemisia tridentata</i> Nutt. ssp. <i>tridentata</i> Great Basin Sagebrush	R
<i>Baccharis salicifolia</i> (R.P.) Pers. Mule-fat	W
• <i>Centaurea melitensis</i> L. Tocalote	A,X
<i>Chaenactis glabriuscula</i> DC var. <i>glabriuscula</i>	D
<i>Chaenactis stevioides</i> H. & A.	D
<i>Chaenactis xantiana</i> Gray	D
<i>Chrysopsis villosa</i> (Pursh) Nutt. Golden-Aster	D
<i>Chrysothamnus naseosus</i> (Pall.) Britton	R
<i>Cirsium californicum</i> Gray. California Thistle	C,D,J,W
• <i>Cirsium vulgare</i> (Savi) Ten. Bull Thistle	W
<i>Corethrogyne filaginifolia</i> var. <i>peirsonii</i> Canby. peirson's Cudweed-Aster	D
<i>Encelia virginensis</i> A. Nels. ssp. <i>actoni</i> (Elmer) Keck	D
<i>Ericameria cooperi</i> (Gray) Urbatsch	R
<i>Ericameria linearifolia</i> (DC.) Urbatsch & Wussow.	J,R
<i>Erigeron foliosus</i> Nutt. var. <i>covillei</i> (Greene) Compton	C
<i>Eriophyllum confertiflorum</i> (DC.) Gray var. <i>confertiflorum</i>	D
<i>Gnaphalium californicum</i> D.C. California Everlasting	C,D
<i>Grindelia camporum</i> Greene var. <i>parviflora</i> Steyermark (tentative I.D.)	C
<i>Gutierrezia sarothrae</i> (Pursh) Britt. & Rusby. San Joaquin Matchweed	A,R
• <i>Helianthus annuus</i> ssp. <i>lenticularis</i> (Dougl.) Ckll. Western Sunflower	A
<i>Hymenoclea salsola</i> T. & G. var. <i>salsola</i>	D
<i>Iva axillaris</i> ssp. <i>robustior</i> (Hook.) Bassett.	A,W
• <i>Lactuca serriola</i> L. Prickly Lettuce	W
<i>Lagophylla ramosissima</i> Nutt.	D
<i>Lasthenia californica</i> D.C. ex Lindley. Goldfields	A
<i>Layia glandulosa</i> (Hook.) Hook. & Arn. White Layia	D
<i>Lepidospartum squamatum</i> (Gray) Gray. Scale-Broom	W
<i>Lessingia lemmonii</i> Gray	D
<i>Malacothrix californica</i> DC.	D
• <i>Matricaria matricarioides</i> (Less.) Porter. Pineapple Weed	W
<i>Microseris lindleyi</i> (D.C.) Gray. Silver Puffs	D
<i>Rafinesquia californica</i> Nutt. California Chicory	C,D
<i>Rigiopappus leptocladius</i> Gray	C,D
<i>Senecio douglasii</i> var. <i>monoensis</i> (Greene) Jeps. Sand-Wash Butterweed	W
<i>Stephanomeria exigua</i> Nutt. Wreath-Plant	R
<i>Stephanomeria pauciflora</i> (Torr) Nutt. Few-Flower Wreath-Plant	D
• <i>Taxaxacum officinale</i> Weber in Wiggers.	A,W
<i>Tetradymnia spinosa</i> H. & A. var. <i>longispina</i> Jones	J
Betulaceae - Birch Family	
• <i>Alnus</i> sp. (planted)	X

FLORAL CHECKLIST OF THE RITTER RANCH SPECIFIC PLAN AREA
(CONTINUED)

	HABITAT
Boraginaceae - Borage Family	
<i>Amsinckia tessellata</i> Gray.	D
<i>Cryptantha barbiger</i> (Gray)Greene.	D
<i>Cryptantha circumscissa</i> (H. & A.)Jtn.	D
<i>Cryptantha muricata</i> (H. & A.)Nels & MacBr. var. <i>muricata</i> Prickly Cryptantha	C,D,J
<i>Cryptantha nevadensis</i> Nels. & Kenn. var. <i>nevadensis</i>	D,J
<i>Cryptantha pterocarya</i> (Torr.)Greene	D
<i>Heliotropium curvassavicum</i> var. <i>oculatum</i> (Heller)Jtn. Salt Heliotrope	W
<i>Pectocarya penicillata</i> (H. & A.) A. D.C. Winged Pectocarya	D,J
<i>Pectocarya recurvata</i> Jtn.	D
<i>Pectocarya setosa</i> Gray	D,J
<i>Plagiobothrys arizonicus</i> (Gray)Greene ex Gray	D,J
<i>Plagiobothrys californicus</i> (Gray)Greene var. <i>californicus</i> California Popcornflower	C,D,J
Brassicaceae - Mustard Family	
<i>Arabis pulchra</i> Jones var. <i>pulchra</i> Beautiful Rockcress	J
• <i>Brassica geniculata</i> (Desf.)J.Ball	A
<i>Caulanthus lasiophyllum</i> (H. & A.)Pays. California Mustard	A,C,D,X
<i>Descurainia pinnata</i> ssp. <i>halictorum</i> (Ckll.)Detl.	A,C,D,J
<i>Descurainia sophia</i> (L.) Webb	D,J
<i>Erysimum capitatum</i> (Dougl.)Greene. Western Wallflower	C
• <i>Lepidium latifolium</i> L.	W
<i>Lepidium nitidum</i> Nutt. Pepper-grass	C
<i>Lepidium perfoliatum</i> L. Shield-grass	A,W
• <i>Rorippa nasturtium-aquaticum</i> (L.)Schinz & Thell.	W
• <i>Sisymbrium altissimum</i> L. Tumble-Mustard	A,C,D,R,X
• <i>Sisymbrium irio</i> L. London Rocket	A,X
<i>Thysanocarpus lacinianus</i> var. <i>crenatus</i> (Nutt.)Brew. Notch Fringepod	A,D,K
<i>Tropidocarpum gracile</i> Hook. Slender Dobie-Pod	A,C,J
Cactaceae - Cactus Family	
<i>Opuntia basilaris</i> Engelm. & Bigel.	C,J
Caprifoliaceae - Honeysuckle Family	
<i>Lonicera subspicata</i> H. & A. var. <i>johnstonii</i>	C
Caryophyllaceae - Pink Family	
<i>Cerastium glomeratum</i> Thuill. Mouse-Ear Chickweed	A,C
Chenopodiaceae - Goosefoot Family	
<i>Atriplex canescens</i> (Pursh)Nutt. ssp. <i>canescens</i> Four-wing Saltbush	D
<i>Atriplex patula</i> ssp. <i>hastata</i> (L.)Hall. & Clem. Halberd-Leaf Saltbush	W
• <i>Atriplex semibaccata</i> R. Br. Australian Saltbush	A,X
<i>Bassia hyssopifolia</i> (Pall.)Kuntz.	A,W
<i>Chenopodium berlandieri</i> var. <i>sinuatum</i> (J. Murr.)Wahl.	W
<i>Chenopodium californicum</i> (Wats.)Wats. California Goosefoot	D
• <i>Chenopodium murale</i> L. Nettle-Leaf Goosefoot	A,X
• <i>Salsola australis</i> R. Br. Russian-thistle	A,X

FLORAL CHECKLIST OF THE RITTER RANCH SPECIFIC PLAN AREA
(CONTINUED)

	<u>HABITAT</u>
Convolvulaceae - Morning-Glory Family	
<i>Calystegia macrostegia</i> ssp. <i>arida</i> (Greene) Brum.	C
<i>Calystegia peirsonii</i> (Abrams) Brummitt. Peirson's Morning-Glory	D, J
<i>Cuscuta californica</i> H. & A. Witch's Hair	D
Crassulaceae - Stonecrop Family	
<i>Dudleya saxosa</i> ssp. <i>aloides</i> (Rose) Moran.	J
Cucurbitaceae - Gourd Family	
<i>Cucurbita foetidissima</i> HBK. Calabazilla	A
<i>Marah macrocarpus</i> (Greene) Greene. Manroot, Wild-Cucumber	C, D
Ericaceae - Heath Family	
<i>Arctostaphylos glauca</i> Lindl. Big-berry Manzanita	C
Euphorbiaceae - Spurge Family	
<i>Chamaesyce albomarginata</i> (T. & G.) Small. Rattlesnake Spurge	A
<i>Eremocarpus setigerus</i> (Hook.) Benth. Doveweed	A
Fabaceae - Pea Family	
<i>Astragalus douglasii</i> (T. & G.) Gray var. <i>douglasii</i> Douglas' Mild-vetch	D
<i>Lathyrus vestitus</i> ssp. <i>barbarae</i> (White) C.L. Hitch.	C
• <i>Lotus corniculatus</i> L.	W, X
<i>Lotus grandiflorus</i> (Benth.) Greene.	C
<i>Lotus scoparius</i> ssp. <i>brevialatus</i> (Ottley) Munz. Deerweed	D
<i>Lotus strigosus</i> (Nutt. in T. & G.) Greene. var. <i>strigosus</i> Bishop's Lotus	D
<i>Lupinus bicolor</i> ssp. <i>microphyllus</i> (Wats.) D. Dunn. Lupine	D
<i>Lupinus densiflorus</i> Benth. var. <i>palustris</i> (Kell) C.P. Sm	C
<i>Lupinus excubitus</i> Jones var. <i>excubitus</i>	C
<i>Lupinus sparsiflorus</i> Benth. ssp. <i>inopinatus</i> (C.P. Small) Dizek. & Dunn	D
• <i>Melilotus indicus</i> (L.) All. Indian Sweet Clover	A, W, X
• <i>Robinia pseudo-acacia</i> L. Honey Locust	X
<i>Trifolium albopurpureum</i> T. & G.	A
<i>Trifolium gracilentum</i> T. & G.	A
Fagaceae - Oak Family	
<i>Quercus agrifolia</i> Nee. var. <i>agrifolia</i> Coast Live Oak	C
<i>Quercus chrysolepis</i> Liebm. Canyon Live Oak	C
<i>Quercus turbinella</i> Greene ssp. <i>turbinella</i>	C
<i>Quercus wislizenii</i> var. <i>frutescens</i> Engelm. Scrub Live Oak	C
Fumariaceae	
<i>Dicentra chrysantha</i> (H. & A.) Walp. Golden Ear-drops	C
Geraniaceae - Geranium Family	
• <i>Erodium cicutarium</i> (L.) L'Her. Red-stem Filaree	A, D, X
Grossulariaceae - Currant Family	
<i>Ribes quercetorum</i> Greene. Yellow-flowered Gooseberry	C, J
<i>Ribes roezlii</i> Regel. Sierra Gooseberry	C

FLORAL CHECKLIST OF THE RITTER RANCH SPECIFIC PLAN AREA
(CONTINUED)

	<u>HABITAT</u>
Hydrophyllaceae - Waterleaf Family	
<i>Eriodictyon crassifolium</i> Benth. Yerba Santa	C,D
<i>Eriodictyon trichocalyx</i> Heller ssp. <i>trichocalyx</i>	C,D,J
<i>Lemmonia californica</i> Gray.	D
<i>Nemophila menziesii</i> (Parish) Munz.	D
<i>Phacelia distans</i> Benth. Wild-Heliotrope	D
<i>Phacelia fremontii</i> Torr.	D
<i>Phacelia imbricata</i> Greene ssp. <i>imbricata</i>	C
<i>Phacelia parryi</i> Torr.	D
<i>Phacelia tanacetifolia</i> Benth.	C,D,J
<i>Turricula parryi</i> (Gray) Macbr. Sticky Nama	J
Lamiaceae - Mint Family	
* <i>Marrubium vulgare</i> L. Horehound	X
<i>Monardella breweri</i> Gray	C,D
<i>Salvia apiana</i> Jeps. White Sage	D
<i>Salvia carduaceae</i> Benth.	J
<i>Salvia columbariae</i> Benth. Chia	D
<i>Salvia dornii</i> (Kell.) Abrams ssp. <i>dornii</i>	D,J
<i>Trichostema lanceolatum</i> Benth. Vinegarweed	A
Loasaceae - Stick-Leaf Family	
<i>Mentzelia montana</i> (Davids) Davids	C
<i>Mentzelia veatchiana</i> Kell	D
Lythraceae - Loosestrife Family	
* <i>Lythrum hyssopifolia</i> L. Grass Poly	W
Malvaceae - Mallow Family	
<i>Malacothamnus marrubioides</i> (Dur. & Hilg.) Greene	C
<i>Malvella leprosa</i> (Ort.) Krapov. Alkali Mallow	W
Nyctaginaceae - Four-O'Clock Family	
<i>Mirabilis bigelovii</i> Gray.	D
Oleaceae - Olive Family	
<i>Forestiera neomexicana</i> Gray	W
* <i>Olea europea</i> L. Mission Olive	X
Onagraceae - Evening-Primrose Family	
<i>Camissonia californica</i> (Nutt. ex T. & G.) Raven. Mustard-Evening-primrose	A,D
<i>Camissonia campestris</i> (Greene) Raven.	D
<i>Camissonia hirtella</i> (Greene) Raven. Field Sun-Cup	C,D
<i>Camissonia strigulosa</i> (F. & M.) Raven. Strigulose Evening-Primrose	D,J
<i>Clarkia cylindrica</i> (Jeps.) Lewis & Lewis. Punchbowl Clarkia	C
<i>Clarkia purpurea</i> (Curt.) Nels. & MacBr. ssp. <i>viminea</i> (Dougl. in Lindl.) Lewis & Lewis. Large Clarkia	A,C
<i>Clarkia unguiculata</i> Lindl.	C
<i>Epilobium canum</i> ssp. <i>latifolium</i> (Hook.) Raven.	W
<i>Oenothera avita</i> (W. Klein) W. Klein	J

FLORAL CHECKLIST OF THE RITTER RANCH SPECIFIC PLAN AREA
(CONTINUED)

	<u>HABITAT</u>
Orobanchaceae - Broom-Rape Family	
<i>Orobanche fasciculata</i> Nutt.	C
Paeoniaceae - Peony Family	
<i>Paeonia californica</i> Nutt. in T. & G. California Peony	C,D
Papaveraceae - Poppy Family	
<i>Argemone munita</i> Dur. & Hilg. ssp. <i>rotundata</i> (Rydb.)Owenbey	C,D
<i>Dendromecon rigida</i> ssp. <i>rigida</i> (Benth.) California Bush Poppy	C
<i>Eschscholzia californica</i> var. <i>peninsularis</i> (Greene)Munz. Annual Calif. Poppy	A,D
Polemoniaceae - Phlox Family	
<i>Allophyllum violaceum</i> (Heller)A.V. Grant	D
<i>Eriastrum saphirinum</i> ssp. <i>ambiguum</i> (Jones)Mason.	D,J
<i>Gilia brecciarum</i> Jones	D
<i>Gilia capitata</i> ssp. <i>abrotanifolia</i> (Nutt. ex Greene)V. Grant. Ball Gilia	A,D,J
<i>Gilia latiflora</i> ssp. <i>latiflora</i> (Gray)Gray.	D
<i>Gilia sinuata</i> Dougl. ex Benth. ssp. <i>exilis</i>	D
<i>Linanthus androsaceus</i> (Benth.) ssp. <i>micranthus</i>	C,D
<i>Linanthus aureus</i> (Nutt.)Greene	D
<i>Linanthus bigelovii</i> (Gray)Greene.	C,D
Polygonaceae - Buckwheat Family	
<i>Chorizanthe fimbriata</i> Nutt. Fringed Turkish Rugging	D,J
<i>Chorizanthe stictoides</i> Benth.	D
<i>Chorizanthe thurberi</i> (Gray)Wats.	D
<i>Eriogonum baileyi</i> Wats.	D
<i>Eriogonum davidsonii</i> Greene. Davidson's Buckwheat	D,J
<i>Eriogonum fasciculatum</i> ssp. <i>foliolosum</i> (Nutt.)S. Stokes. Interior Flat-top Buckwheat	D
<i>Eriogonum fasciculatum</i> Benth. ssp. <i>polifolium</i> (Benth.)Stokes	D,J,R
<i>Eriogonum kennedyi</i> Porter ex Wats. sps. <i>kennedyi</i>	J
<i>Eriogonum nudum</i> Dougl. ex Benth. ssp. <i>saxicola</i>	J
<i>Rumex crispus</i> L. Curly Dock	W
<i>Rumex hymenosepalus</i> Torr. Wild-Rhubarb	J,W
Portulacaceae - Purslane Family	
<i>Calyptridium monandrum</i> Nutt in T. & G. Common Calyptridium	D
<i>Claytonia perfoliata</i> Donn. Common Miner's-Lettuce	C,W
<i>Claytonia spathulata</i> Dougl. ex Hook	D
<i>Polygonum arenarium</i> Bor.	A
Primulaceae - Primrose Family	
* <i>Anagallis arvensis</i> L. Scarlet Pimpernel	W
Ranunculaceae - Crowfoot Family	
<i>Clematis lasiantha</i> Nutt. in T. & G. Pipestem Virgin's-Bower	C
<i>Delphinium parishii</i> Gray ssp. <i>parishii</i>	D

FLORAL CHECKLIST OF THE RITTER RANCH SPECIFIC PLAN AREA
(CONTINUED)

HABITAT

Rhamnaceae - Buckthorn Family

- Ceanothus greggii* var. *perplexans* (Trel.) Jeps. Cupleaf Lilac
Rhamnus ilicifolia Kell. Hollyleaf Redberry

C
C

Rosaceae - Rose Family

- Adenostoma fasciculatum* H. & A. Common Chamise
Cercocarpus betuloides Nutt. ex T. & G. Mountain-Mahogany
Prunus fasciculata (Torr.) Gray. Desert Almond
Prunus ilicifolia (Nutt.) Walp. Holly-leaf Cherry
Prunus virginiana var. *demissa* (Nutt.) Sarg. Western Choke Cherry
Purshia glandulosa Curran. Mojave Antelope Bush

C
C
D
C
C
J

Rubiaceae - Madder Family

- Galium andrewsii* Gray ssp. *andrewsii* Moss Bedstraw
Galium angustifolium Nutt. ex T. & G.
• *Galium aparine* L. Common Bedstraw
Galium nuttallii Gray ssp. *nuttallii* Nuttall's Bedstraw

C
C
C
C

Salicaceae - Willow Family

- Populus fremontii* Wats. Western Cottonwood
Salix gooddingii Ball. Southwestern Willow
Salix lasiandra var. *lancifolia* (Anderss.) Bebb. Lance-leaf Willow
Salix laevigata Bebb.
Salix lasiolepis Benth. var. *lasiolepis*. Arroyo Willow

W
W
W
W
W

Saururaceae - Lizard-tail Family

- Anemopsis californica* Hook. Yerba Mansa

W

Scrophulariaceae - Figwort Family

- Castilleja affinis* H. & A. ssp. *affinis*. Coast Paint-Brush
Keckiella ternata (Torr. ex Gray) Straw. ssp. *ternata* Summer Penstemon
Mimulus bigelovii (Gray) Gray. Bigelow's Monkey Flower
Mimulus guttatus Fisch. ex D.C. Common Monkey Flower
Orthocarpus purpurascens Benth. var. *purpurascens* Red Owl's-Clover
Penstemon centranthifolius Benth. Scarlet Bugler
Penstemon grinnellii East. ssp. *grinnellii*
Scrophularia californica var. *floribunda* Greene. California Bee Plant
Veronica americana (Raf.) Schw. Brooklime

C
C
C,D
C
A,D
D
C
C
W

Solanaceae - Nightshade Family

- Datura discolor* Bernh. Jimsonweed
Datura wrightii Regel. Western Jimsonweed
Lycium cooperi Gray
Nicotiana bigelovii (Torr.) Wats. var. *wallacei* Gray
Solanum xanti Parish.

D
A,D
D,J
X
C

Sterculiaceae - Cacao Family

- Fremontodendron californicum* (Torr.) Cov.

C

FLORAL CHECKLIST OF THE RITTER RANCH SPECIFIC PLAN AREA
(CONTINUED)

	<u>HABITAT</u>
Styracaceae - Storax Family	
<i>Syrax officinalis</i> ssp. <i>fulvescens</i> (Eastw.)Beauchamp ex Thorne. Snowdrop Bush	C
Tamaricaceae - Tamarisk Family	
* <i>Tamarix parviflora</i> DC.	W
Urticaceae - Nettle Family	
<i>Urtica dioica</i> ssp. <i>holosericea</i> (Nutt.)Thorne. Hoary Nettle	W
Verbenaceae - Verbena Family	
<i>Verbena menthaefolia</i> Benth. Mint-leaf Vervain	W
Violaceae - Violet Family	
<i>Viola quercetorum</i> Baker & Clausen	D
Viscaceae - Mistletoe Family	
<i>Phoradendron bolleanum</i> ssp. <i>densum</i> (Torr.)Wiens. Dense Mistletoe	J
<i>Phoradendron villosum</i> (Nutt. in T. & G.)Nutt. Oak Mistletoe	C,W
 MONOCOTYLEDONS	
Agavaceae - Agave Family	
<i>Yucca brevifolia</i> Engelm. Joshua Tree	J
<i>Yucca whipplei</i> Torr. Our Lord's Candle	D,J
Alliaceae - Onion Family	
<i>Allium fimbriatum</i> Wats. var. <i>fimbriatum</i>	D
<i>Dichelostemma pulchellum</i> (Salisb.)Heller. Wild-Hyacinth	C,D
<i>Muilla maritima</i> (Torr.)Wats. Rough Muilla	D
Cyperaceae - Sedge Family	
<i>Carex alma</i> Bailey	W
<i>Carex praegracilis</i> W. Boott.	A,W
<i>Carex senta</i> Boott.	A,W
<i>Cyperus odoratus</i> L.	W
<i>Eleocharis macrostachya</i> Britt. in Small. Pale Spike-Sedge	W
<i>Eleocharis montevidensis</i> Kunth. Dombey's Spike-Sedge	W
<i>Scirpus acutus</i> Muhl ex Bigel. Viscid Bulrush	W
<i>Scirpus robustus</i> Pursh. Prairie Bulrush	W
Juncaceae - Rush Family	
<i>Juncus mexicanus</i> Willd. Mexican Rush	W
<i>Juncus texilis</i> Buchen. Basket Rush	W
Liliaceae - Lily Family	
<i>Calochortus kennedyi</i> Porter	D
<i>Calochortus venustus</i> Dougl. ex Benth. Square Mariposa	C

FLORAL CHECKLIST OF THE RITTER RANCH SPECIFIC PLAN AREA (CONTINUED)

	HABITAT
Poaceae - Grass Family	
• <i>Avena barbata</i> L. Slender Oat	A,D
• <i>Bromus diandrus</i> Roth. Ripgut Grass	A
• <i>Bromus mollis</i> L. Soft Chess	A
• <i>Bromus rubens</i> L. Red Brome	A
• <i>Bromus tectorum</i> L. Cheat-Grass Brome	A,D
• <i>Cynodon dactylon</i> (L.)Pers. Bermuda Grass	X
<i>Distichlis spicata</i> (Greene) var. <i>stricta</i> (Torr.)Beetle	A,W
<i>Elymus condensatus</i> Presl. Giant Rye	C
<i>Elymus glaucus</i> Buckl. ssp. <i>glaucus</i>	A
<i>Elymus triticoides</i> Buckl. Beardless Wild Ryegrass	W
• <i>Hordeum murinum</i> ssp. <i>leporinum</i> (Link)Arcang. Hare Barley	X
• <i>Lamarckia aurea</i> (L.)Moench. Goldentop	A,X
<i>Melica imperfecta</i> Trin. Coast Range Melic	D
• <i>Poa pratensis</i> L. Kentucky Bluegrass	W,X
<i>Poa scabrella</i> (Thurb.)Benth. ex Vasey	D
• <i>Polypogon monspeliensis</i> (L.)Desf. Annual Beardgrass	W
• <i>Schismus barbatus</i> (L.)Thell. Mediterranean Schismus	D,X
<i>Sitanion hystrix</i> (Nutt.)J. G. Sm. Bottlebrush Squirreltail	A,D
<i>Stipa speciosa</i> Trin. & Rupr. Desert Stipa	D
• <i>Vulpia myuros</i> (L.)K.C. Gmelin. Foxtail Fescue	A,X
<i>Vulpia microstachys</i> Gray	A,X
Typhaceae - Cat-Tail Family	
<i>Typha domingensis</i> Pers. Tule Cat-tail	W
<i>Typha latifolia</i> L. Soft Flag	W

• - Denotes non-native plant taxa

Turbinella Oak Chaparral. The ridges and north-facing slopes above 4,000 feet and on south-facing slopes above 4,800 feet contain the Turbinella Oak Chaparral community within the Ritter Ranch property. The dominant species of this community are Desert Scrub Oak, Desert Ceanothus, Sticky Nama, Bush Mallow, and Cottonthorn.

The five different types of woodland communities identified on the Ritter Ranch site include California Juniper Woodland, Joshua Tree/California Juniper Woodland, Blue-Canyon Turbinella Oak Woodland, Desert Olive Arroyo/Canyon Woodland and Cottonwood Springs/Riparian Woodland.

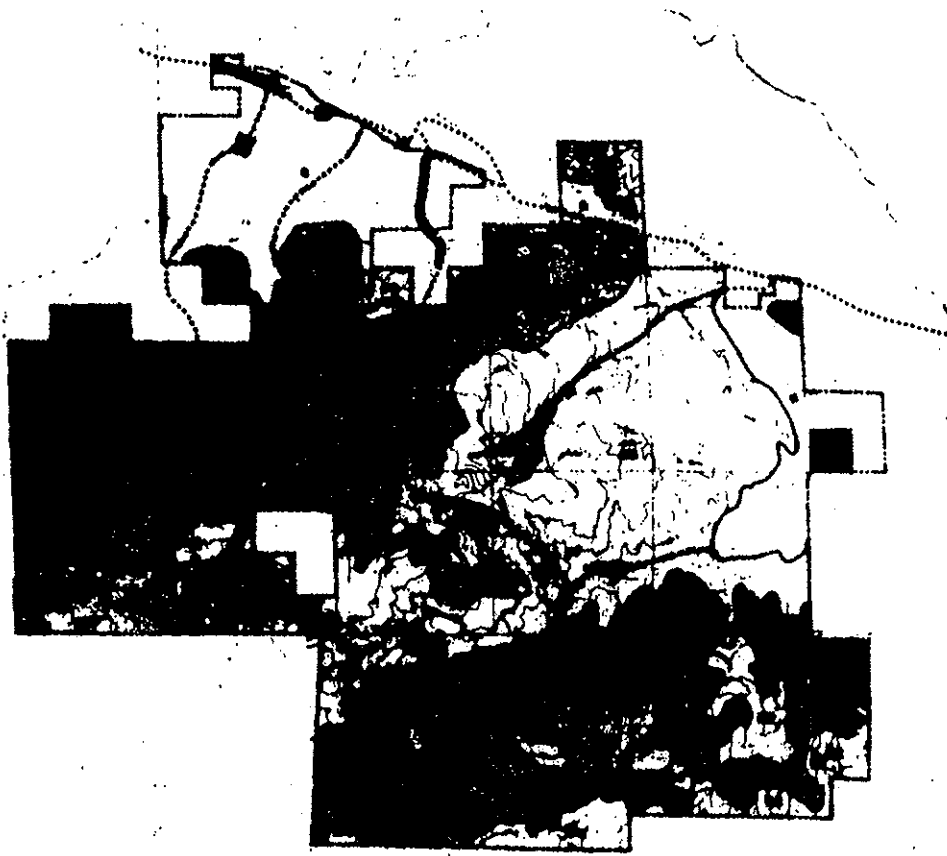
California Juniper Woodland. California Juniper Woodland occurs on both the mountain slopes, alluvial flats and slopes of the Ritter Ranch project site. Areas between the trees are vegetated by low, sparse scrub of California Buckwheat, Chaparral Yucca, Bush Senecio, Heather Goldenbush, Corethrogyne, and grasses such as Red Brome and Slender Oat.

Joshua Tree/California Juniper Woodland. This association of scattered small California Juniper and Joshua trees occurs along the San Andreas Fault Zone near the northeastern boundary of the Ritter Ranch property at an altitude of about 2,800 feet. Other plants commonly occurring among this vegetation are Rabbit Bush and Fourwinged Saltbush.

Blue Canyon Turbinella Oak Woodland. This vegetation forms a moderately dense woodland on the north-facing slopes of Mint Peak and Mt. McDill within the Ritter Ranch site. Dominant species include canyon oak, Desert Oak, Blue Oak, Big-leaf Maple, California Coffeeberry, Desert Ceanothus, Great Basin Sage brush, Chamise, and Hollyleafed Redberry.

Desert Olive Arroyo/Canyon Woodland. Desert Olive Arroyo/Canyon Woodland occurs in the canyon bottoms and arroyos along the north-facing slopes of the Ritter Ranch site where seepage and sub-surface flow allows this riparian-like community to become established. Common species among this vegetation type include Desert Olive, Mexican Elderberry, Gooseberry, Arroyo Willow, Nettle, Great Basin Sagebrush, Mulefat, Scalebroom, and Verbena.

Cottonwood Springs/Riparian Woodland. A sparse riparian community dominated by cottonwood trees exists in several seep and spring areas within the northwestern Ritter Ranch property. Approximately 50 Cottonwoods are present along Amargosa Creek just west of the Ritter Ranch entrance at Godde Hill Road. Three cottonwoods also occur



Ritter Ranch Specific Plan

- | | | | | | |
|--|-------------------------|--|---|--|-------------------|
| | Pringle's Yampah | | Spotted Owl Survey (Minimum Study Area Limit) | | Spring |
| | Pierson's Morning Glory | | Cooper's Hawk Probable Nesting Habitat | | Wildlife Corridor |
| | Great Valley Gum Plant | | Raptor Nest Active, But Unidentified | | |

along Amargosa Creek just east of the Pine Creek junction. An additional 22 cottonwood trees are present along the road from Elizabeth Lake Road to Messer Ranch. Finally, about 45 cottonwoods are present just north of Elizabeth Lake Road at the north end of the property. Approximately 65 acres of wetlands exist in the northwestern corner of the property and extends downstream from this riparian area.

Grasslands and Pastures. Grassland areas exist in the northwest and northeastern portions of the Ritter Ranch property on heavily grazed alluvial flats and gentle slopes. These areas are dominated by a number of species of weedy grasses and other non-woody introduced plant species.

Ruderal. Disturbed ruderal areas such as were observed around cattle tanks, and areas cleared for microwave equipment pads, roads, and telephone cable are vegetated with a weedy assemblage of plants including Goosefoot, Doveweed, Russian Thistle, Prickly Poppy, Sticky Nama and Bush Mallow.

Sensitive Vegetation

Sensitive plant species found on the Ritter Ranch site include the Peirson's Morning-glory, Pringle's Yampah, Great Valley gumplant and riparian/wetlands habitat. Peirson's Morning-glory is a low rarity plant; however, it appears to be widespread in the Transverse Range foothills of northeastern Los Angeles County. At the present time Pierson's Morning Glory is not considered endangered, with potential for extinction or extirpation low. However, its limited range and its Category 2 Federal Listing indicate that information on its biological vulnerability and threats to its population are not well documented. As a result, future information and field studies could lead to a reassessment of its status. The Pringle's Yampah occurs within the Ritter Ranch area proposed for natural open space. The Great Valley gumplant is a limited distribution species (CNPS listing status 1-1-3), and occurs as a small population in Planning Unit 1C (this population has been disturbed by grazing cattle). Riparian/wetlands habitat is of statewide significance due to rapid loss of this habitat, which is typically associated with seasonal and perennial streams. This habitat occurs onsite primarily along Amargosa Creek and Ritter Creek. Loss of this habitat is subject to review and mitigation requirements of the California Department of Fish and Game (for streambed alteration) and U.S. Army Corps. of Engineers (for "discharge into waters of the U.S.").

Zoological Resources

The six major wildlife habitats which occur on Ritter Ranch include Joshua Tree/Juniper Woodland, Desert Scrub, Desert Riparian Woodland, Annual Grassland, Oak Woodland and Chaparral communities. The diversity and quality of these habitats allow the properties to support a diverse fauna.

Joshua Tree/Juniper Woodland. This woodland of small scattered trees lies near the San Andreas fault on the north side of the Ritter Ranch property where it supports a moderate species diversity. Both the Joshua Trees and Junipers on the site are large and healthy. The avifauna in this habitat is particularly rich, due in part to the relative abundance of food sources, as well as nesting, and resting sites available in these woodlands. Commonly found birds in this habitat include Scott's Orioles, Scrub Jays, and Ash-throated Flycatchers. Also, reptiles such as the Desert Night Lizard and the Night Snake shelter under and forage among the fallen branches of the giant yuccas in this habitat.

Desert Scrub. South-facing slopes and ridges of the Ritter Ranch property are vegetated with California Buckwheat Scrub and have a relatively poor wildlife diversity. Birds commonly found in this habitat include Red-tailed Hawks, American Kestrels, and California quails. Mammal known to occur are the Desert Cottontail, Pacific Kangaroo Rat, Deer Mouse, the California Vole. The Side-blotched Lizard and the Western Fence Lizard are commonly found reptiles of this community. Big Sagebrush Scrub also exists in small areas of the Ritter Ranch property and contains a low species diversity.

Desert Riparian Woodland. Desert Olive Arroyo/Canyon Woodland occupies seepage areas and moist canyon bottoms of the Ritter Ranch site where species diversity is relatively high. Birds known to occur in this community include: California Quail, Mourning Dove, Black Phoebe, Scrub Jay, Plain Titmouse, Bushtit, Phainopepla, Black-headed grosbeak and the House Finch. Among the mammals known to occupy this habitat are the Ornate Shrew, Desert Cottontail, California Ground Squirrel, Botta Pocket Gopher, Western Harvest Mouse, Deer Mouse, California Vole and the Striped Skunk. This community also provides suitable habitat for reptiles such as the Western Fence Lizard, Desert Night Lizard, Desert Horned Lizard, Coachwhip, Gopher Snake and the Mojave Rattlesnake.

Cottonwood springs and additional riparian areas make up a highly disturbed habitat on the creek bottom along the northern boundary of the Ritter Ranch property. In spite of human disturbance, this habitat has relatively high diversity. Birds commonly found are the Red-

tailed Hawk, California Quail, Mourning Dove, Northern Flicker, Western Kingbird, European Starling, Northern Oriole, Brewer's Blackbird and the House Finch. These areas provide habitat for mammals such as the Desert Cottontail, California Ground Squirrel, Botta Pocket Gopher, Western Harvest Mouse, Deermouse, California Vole and the House mouse. In addition, reptiles including the Western Toad, Western Fence Lizard, Side-blotched Lizard, Coachwhip and Gopher snake are known to occur.

Annual Grassland. Disturbed grasslands and pastures constitute the large portion of the Ritter Ranch property capable of being developed in the northeast and northwest corners of the site. These areas support a low species diversity. Birds commonly present are the Prairie Falcon and the Morning Dove. Mammals such as the Black-tailed Hare and the California Ground Squirrel are also expected to be present.

Relatively undisturbed Annual Grassland habitat occurs only in scattered locales adjacent to the Desert Riparian Woodland throughout the Ritter Ranch site. This habitat does not support an extremely diverse vertebrate fauna; however, it is important as raptor foraging habitat and as wintering areas for a variety of sparrows, as well as other ground-foraging birds, such as the California Quail and Western Meadowlarks. Aerial foragers such as swallows and variety of small mammals and snakes are also common in these habitats.

Chaparral. Chaparral communities are present on the steeper north and south-facing slopes of the Ritter Ranch property and contain a moderate species diversity. Commonly found birds in this community include the Scrub Jay, Bewick's Wren, California Thrush, Brown Towhee, White-crowned Sparrow, Plain Titmouse and Bushtit. Mammals which exist in these communities are the Desert Cottontail, California Pocket Mouse, California Mouse, Deer Mouse and the Dusky-footed Wood Rat. This community also provides suitable habitat for reptiles such as the Western Fence Lizard, Side-blocked Lizard, Common Kingsnake, Western Rattlesnake and the Gopher Snake.

Oak Woodlands These moderately dense woodlands occupy the higher north-facing slopes of the Ritter Ranch site and support a moderately high species diversity. Birds commonly known to occur in these areas include Nuttall's Woodpecker, Western Wood-pewee, Scrub Jay, Bewick's Wren and the House Finch. This community also provides suitable habitat for mammals such as the Desert Cottontail, California Ground Squirrel, California Pocket Mouse, Brush Mouse, Deer Mouse and the Mule Deer. Reptiles known to exist include the Western Fence Lizard, Side-Blotched Lizard, Striped Racer and the Western Rattlesnake.

Amphibians. Due to the dry nature of the sites and the arid conditions during the survey period, very few species of amphibians are expected to occur on Ritter Ranch. The only amphibian that was detected during the surveys was the Pacific Treefrog, which was heard calling from the Amargosa Creek drainage, the only area that is expected to support any additional amphibious life on the site. California Treefrogs, Western Toads and Slender-Salamanders are also probable residents of the drainage. The species of salamander most likely to occur on the Ritter Ranch is the Black-bellied Salamander. Few if any other amphibian species are expected to occur on either site.

Reptiles. Since the Ritter Ranch property occupies the coastal-montane/high desert transition area, a diverse reptile fauna, consisting of up to 20 species, can be expected to occur. Many of these species are cryptic, secretive, nocturnal, or may only occur in very low densities and as such are usually detectable only over the course of an extended, or long-term survey. The four species of reptiles observed on the sites include the Desert Spiny Lizard, the Western Fence Lizard Western Whiptails and the Gopher Snake. Also observed on the Ritter Ranch site was the Side-blotched Lizard. Additional species that could occur on the sites include the Coast Horned Lizard, Desert Horned Lizard, Southern Pacific Rattlesnake, Common Kingsnake, and California Whip Snake. Amargosa Creek also offers good habitat for the Two-striped Garter Snake. Nocturnal species such as the Long-nosed Snake and the Glossy Snake can be expected in more level sandy areas.

Birds. During the Ritter Ranch survey, 64 species of birds were identified (refer to Table 10, ANIMALS OBSERVED OR DETECTED ON THE RITTER RANCH SITE). This high diversity of avifauna is indicative of the site's importance as high quality wildlife habitat for a variety of breeding and migrating birds.

Two of these species, the European Starling and the House Sparrow are not native North American avifauna. Those native migrants which are expected to breed on the site include the Western Wood Pewee, Ash-throated Flycatcher, Scott's Oriole, and the Wilson's Warbler. Primarily desert birds that were seen in the more arid, Joshua Tree/Juniper Woodland habitat include Scott's Oriole, Phainopepla, and Cactus Wren. Both the red-tailed Hawk and the Golden Eagle were seen flying high over nearby Ritter Ridge. While it is not likely that either species nests on site, there are historical nesting records of eagles within 5 miles of the site, and they are presumed to nest nearby. Both species utilize the area as foraging habitat. Common Ravens actively nest onsite on the cross-beams of one of the electrical transmission lines which cross the southern ridge of the site. Loggerhead Shrikes

TABLE 10

ANIMALS OBSERVED OR DETECTED ON THE RITTER RANCH SPECIFIC PLAN AREA.

HABITAT		F = Flying	
C = Chaparral		J = Joshua Tree/Juniper Woodland	
G = Annual Grassland		R = Desert Riparian Woodland (springs & seeps)	
O = Oak Woodland		S = Desert Scrub	

COMMON NAME	SCIENTIFIC NAME	NUMBER/MEANS OF DETECTION	HABITAT
AMPHIBIANS			
Hylidae (Treefrogs and Relatives)			
Pacific Treefrog	<i>Hyla regilla</i>	Calling	R
REPTILES			
Phrynosomatidae			
Desert Spiny Lizard	<i>Sceloporus magister</i>	2	S
Western Fence Lizard	<i>Sceloporus occidentalis</i>	4	J,G
Side-blotched Lizard	<i>Uta stansburiana</i>	20	C,J,O,S
Teiidae (Whiptails and Relatives)			
Western Whiptail	<i>Cnemidophorus tigris</i>	2	R,S
Colubridae (Colubrids)			
Gopher Snake	<i>Pituophis melanoleucus</i>	1	R,G
BIRDS			
Accipitridae (Hawks, Old World Vultures, and Harriers)			
Cooper's Hawk	<i>Accipiter cooperii</i>	1	C,F,O,R,S
Red-tailed Hawk	<i>Buteo jamaicensis</i>	2/nesting	C,F,S
Golden Eagle	<i>Aquila chrysaetos</i>	3	F,G
Phasianidae (Quails, Pheasants, and Relatives)			
California Quail	<i>Callipepla californica</i>	30	G,S,R
Laridae (Gulls and Terns)			
California Gull	<i>Larus californicus</i>	10	F
Columbidae (Pigeons and Doves)			
Mourning Dove	<i>Zenaida macroura</i>	15	F,O,R
Cuculidae (Typical Cuckoos)			
Greater Roadrunner	<i>Geococcyx californianus</i>	1	G,S
Trochillidae (Hummingbirds)			
Anna's Hummingbird	<i>Calypte anna</i>	7	C,O,S

**ANIMALS OBSERVED OR DETECTED ON THE RITTER RANCH SPECIFIC PLAN
AREA (CONTINUED).**

COMMON NAME	SCIENTIFIC NAME	NUMBER/MEANS OF DETECTION	HABITAT
Picidae (Woodpeckers and Wrynecks)			
Northern Flicker	<i>Colaptes auratus</i>	5	O,R
Tyrannidae (Tyrant Flycatchers)			
Western Wood-Pewee	<i>Contopus sordidulus</i>	5	J,O,R
Dusky Flycatcher	<i>Empidonax oberholseri</i>	2	O,R,S
Black Phoebe	<i>Sayornis nigricans</i>	5	O,R
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>	10	J,O,R
Western Kingbird	<i>Tyrannus verticalis</i>	5-10	G
Pacific-slope Flycatcher	<i>Empidonax difficilis</i>	5	R
Alaudidae (Larks)			
Horned Lark	<i>Eremophila alpestris</i>	35	G
Hirundinidae (Swallows)			
Violet-green Swallow	<i>Tachycineta thalassina</i>	10	F,G,O
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	25	F,G,S
Corvidae (Jays, Magpies, and Crows)			
Scrub Jay	<i>Aphelocoma coerulescens</i>	15	J,O,S
American Crow	<i>Corvus brachyrhynchos</i>	8	R
Common Raven	<i>Corvus corax</i>	5	D,F,G,J,R
Paridae (Titmice)			
Plain Titmouse	<i>Parus inornatus</i>	5	J,O,R
Aegithalidae (Bushtit)			
Bushtit	<i>Psaltirparus minimus</i>	25	R,S
Troglodytidae (Wrens)			
Bewick's Wren	<i>Thryomanes bewickii</i>	5	C,O,S
Cactus Wren	<i>Campylorhynchus brunneicapillus</i>	5	J,S
Muscicapidae (Old World Warblers, Gnatcatchers, Kinglets, Thrushes, Bluebirds, and Wrentit)			
Blue-gray Gnatcatcher	<i>Polioptila caerulea</i>	5	O,S
Western Bluebird	<i>Sialia mexicana</i>	4	G,O,R
Mimidae (Mockingbirds and Thrashers)			
Northern Mockingbird	<i>Mimus polyglottos</i>	5	R,J
California Thrasher	<i>Taxostoma redivivum</i>	2	C
Motacillidae (Wagtails and Pipits)			
American Pipit	<i>Anthus rubescens</i>	5	F
Ptilonotidae (Silky Flycatchers)			
Phainopepla	<i>Phainopepla nitens</i>	15	R,J,O

**ANIMALS OBSERVED OR DETECTED ON THE RITTER RANCH SPECIFIC PLAN
AREA (CONTINUED).**

COMMON NAME	SCIENTIFIC NAME	NUMBER/MEANS OF DETECTION	HABITAT
Laniidae (Shrikes)			
Loggerhead Shrike	<i>Lanius ludovicianus</i>	3	S,G,J
Sturnidae (Starlings)			
European Starling	<i>Sturnus vulgaris</i>	15	R,G,F
Vireonidae (Typical Vireos)			
Solitary Vireo	<i>Vireo solitarius</i>	1	O,R,S
Warbling Vireo	<i>Vireo gilvus</i>	2	O,R,S
Emberizidae (Warblers, Sparrows, Blackbirds and Relatives)			
Nashville Warbler	<i>Vermivora ruficapilla</i>	1	O,R,S
Yellow Warbler	<i>Dendroica petechia</i>	5	O,R,S
Yellow-rumped Warbler	<i>Dendroica coronata</i>	15	O,R,S
Townsend's Warbler	<i>Dendroica townsendi</i>	1	O,R,S
Hermit Warbler	<i>Dendroica occidentalis</i>	2	O,R,W
Wilson's Warbler	<i>Wilsonia pusilla</i>	7	R
Western Tanager	<i>Piranga ludoviciana</i>	1	O,R
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>	5	C,O,R,S
Blue Grosbeak	<i>Guiraca caerulea</i>	3	C,O,R,S
Lazuli Bunting	<i>Passerina amoena</i>	1	C,O,R,S
California Towhee	<i>Pipilo crissalis</i>	4	C,S
Rufous-sided Towhee	<i>Pipilo erythrophthalmus</i>	5	C,R,S
Rufous-crowned Sparrow	<i>Aimophila ruficeps</i>	5	C,G,S
Lark Sparrow	<i>Chondestes grammacus</i>	4	G,O
Black-throated Sparrow	<i>Amphispiza bilineata</i>	2	C,S
Sage Sparrow	<i>Amphispiza belli</i>	4	G,S
Song Sparrow	<i>Melospiza melodia</i>	10	G,R
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	1	O,R,S
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	5	R
Western Meadowlark	<i>Sturnella neglecta</i>	15	G
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>	15	G,R
Brown-headed Cowbird	<i>Molothrus ater</i>	15	G,R
Scott's Oriole	<i>Icterus parisorum</i>	5	J,R
Bullock's Oriole	<i>Icterus galbula</i>	2	R
Fringillidae (Finches)			
Purple Finch	<i>Carpodacus purpureus</i>	5	C,O,R
House Finch	<i>Carpodacus mexicanus</i>	5	O,R
Lesser Goldfinch	<i>Carduelis psaltria</i>	5	O,R
Lawrence's Goldfinch	<i>Carduelis lawrencei</i>	2	O,R
Passeridae (Weaver Finches)			
House Sparrow	<i>Passer domesticus</i>	15	R

**ANIMALS OBSERVED OR DETECTED ON THE RITTER RANCH SPECIFIC PLAN
AREA (CONTINUED).**

COMMON NAME	SCIENTIFIC NAME	NUMBER/MEANS OF DETECTION	HABITAT
MAMMALS			
Leporidae (Rabbits and Hares)			
Brush Rabbit	<i>Sylvilagus bachmani</i>	1	S
Desert Cottontail	<i>Sylvilagus audubonii</i>	5	J,R
Black-tailed Jackrabbit	<i>Lepus californicus</i>	5	S
Sciuridae (Squirrels, Chipmunks, and Marmots)			
Merriam's Chipmunk	<i>Tamias merriami</i>	1	S,R
Geomyidae (Pocket Gophers)			
Botta's Pocket Gopher	<i>Thomomys bottae</i>	Diggings	G
Heteromyidae (Pocket Mice and Kangaroo Rats)			
California Pocket Mouse	<i>Perognathus californicus</i>	Trapped	J,S
Pacific Kangaroo Rat	<i>Dipodomys agilis</i>	Trapped	J,S
Muridae (Rats, mice, and voles)			
Deer Mouse	<i>Peromyscus maniculatus</i>	Trapped	J
Desert Woodrat	<i>Neotoma lepida</i>	Middens	C,S
Dusky-footed Woodrat	<i>Neotoma fuscipes</i>	Middens	O
Canidae (Foxes, Wolves, and Relatives)			
Coyote	<i>Canis latrans</i>	Tracks/scat	R,S,J,G
Gray Fox	<i>Urocyon cinereoargenteus</i>	Tracks/scat	R,S,J,G
Felidae (Cats)			
Mountain Lion	<i>Felis concolor</i>	Tracks	R
Bobcat	<i>Lynx rufus</i>	Tracks/scat	C,O,R
Cervidae (Deer, Elk, and Relatives)			
Mule Deer	<i>Odocoileus hemionus</i>	Pellets	R,G,J

were also observed onsite. Other birds of prey that are expected to occur during the breeding season include the Cooper's Hawk, Prairie Falcon, and the Great Horned Owl.

The three native sparrow species that are represented on the Ritter Ranch property include the Rufous-crowned Sparrow, Sage Sparrow and the Song Sparrow. Two additional species of swallows also observed were the Violet-green Swallows and the Rough-winged Swallows. Birds commonly found in the grasslands include the Western Meadowlark, Horned Lark, Western Kingbird, Greater Roadrunners and California Quail. Two species of blackbirds observed in the Desert Riparian Woodland along Amargosa Creek were the Red-winged Blackbirds and Brewer's Blackbirds. A Least Sandpiper was also seen foraging around some of the standing pools of water along Amargosa Creek.

Mammals. Fifteen species of mammals were detected or observed during the Ritter Ranch site survey (refer to Table 10, ANIMALS OBSERVED OR DETECTED ON THE RITTER RANCH SITE). A cursory small mammal trapping survey was also conducted on the evening of May 15, 1990 in order to supplement the indirect detection of signs with verified in-hand identification.

Species observed in the field surveys include the Merriam's Chipmunk, California Ground Squirrel, Desert Cottontail, Black-tailed Jackrabbit, Brush Rabbit, and Coyote. Those detected on the Ritter Ranch site include the Desert Woodrat, Gray Fox, Botta's Pocket Gopher, Mule Deer, and Mountain Lion. While the deer population on the property is very small, the larger deer populations on areas of undeveloped land to the south of the sites make it probable that the areas get occasional use by lions.

A trapping survey on the sites revealed the Pacific Kangaroo Rat, the Deermouse, and the Pocket Mouse.

Sensitive Animals

Sensitive animals known or expected to occur on the Ritter Ranch property are the Coast horned lizard, Golden eagle, Cooper's Hawk, Spotted Owl, Least Bell's Vireo, Mojave Ground Squirrel, Yellow Warbler and the Mountain Lion.

Although no eagle nests were located on either of the sites, a juvenile and two adults were seen flying low over nearby Ritter Ridge and in the grasslands of the Ritter Ranch site. They are presumed to nest within a few miles of the site. The properties are therefore

likely to be within the home-range of at least one pair. Home-ranges of Golden Eagles in California range from 20 to 60 square miles. Golden Eagles require large areas for foraging and are extremely sensitive to human disturbances.

The Golden Eagle is protected under the Bald Eagle Act (1940), and listed as Fully Protected by the California Department of Fish and Game (1977, 1988, 1989). The Bald Eagle has also been identified by the SDNGWS (1976) as a species of local concern. There has been a reported decline in the population of this species in all areas of the County.

The Mountain Lion has had a current moratorium placed on its hunting, as its exact status is not well known. County estimates are suggested to be 15-50 animals. Due to the presence of Mule Deer and large undeveloped tracts of land, this large cat is expected to occur on the Ritter Ranch property. Tracks of one lion were noted along Amargosa Creek. Such riparian areas serve as important sources of water, food, and cover for these lions and their prey.

The site also provides suitable habitat for the Coast Horned Lizard, which is included on the SDHS (1980) list of Endangered Amphibians/Reptiles. While not seen during the Ritter Ranch survey, this lizard is known to be present in the immediate area and is strongly suspected to occur in certain portions of Ritter Ranch.

Cooper's Hawk was observed foraging on the Ritter Ranch site and is strongly expected to nest on the site in the Oak Woodlands of the north-facing slope of the mountain. Cooper's Hawk is on the Audubon Blue List and is listed by Remsen (1980) as Third Priority. The main threat to this species has been identified as habitat destruction in lowland areas as well as human disturbance at nest sites.

Although the Spotted owl is suspected to occur on the Ritter Ranch site, no spotted owls were observed onsite during the survey. Spotted owls are known to occur within two miles of the sites, and potentially suitable habitat is present on the property in the form of the Oak Woodlands. Of particular concern is the possibility that owls ~~inhabit~~ in the western portion of the site which borders the ~~Angeles~~ Los Padres National Forest by Frying Pan Springs. Any population of owls on the site would serve as a corridor or link between already known and increasingly fragmented populations which occur to either side of the site in adjacent districts. The Spotted owl is on the Audubon Blue List (Tate 1986) and is listed by Remsen (1980) as Priority II. This owl has become increasingly uncommon and declining in many parts of its range.

The Least Bell's Vireo is known to occur 2.5 miles to the west of the Ritter Ranch site along the Amargosa Creek. It is therefore possible, though not probable, that the bird is present onsite. The Least Bell's Vireo is listed as Endangered by the California Department of Fish and Game and by the U.S. Fish and Wildlife Service. Decline in this species are primarily due to habitat destruction.

Although the Mojave Ground Squirrel was suspected to occur on the Ritter Ranch property, a previously focused survey for this animal did not reveal any animals (Feldmeth and Associates, 1990), and the present general survey did not reveal any suitable habitat for the animal. As a result, it is no longer expected to be present on the site.

The Yellow Warbler was observed on the site, and is listed as Priority II by Remsen and by Audobon as a Species of Special Concern.

IMPACTS

Onsite

Development of the Ritter Ranch Specific Plan is estimated to result in the direct loss of approximately 3,024 acres of habitat, which is a significant impact (due to associated direct removal of plant species or indirect disruption of animal species and their foraging habitat). The Specific Plan design has substantially reduced biological resource impacts by providing approximately 7,601 acres of open space, including retaining sensitive/unique areas in Specialty Parks, and minimizing disruption of natural stream channels where possible. Of the 7,601 acres of Open Space, some additional vegetation loss will occur within the Specialty Parks (352 acres) and required Fuel Modification Zones. Fuel Modification Zones are not considered to have significant biological resource value due to the disturbance of natural vegetation in the zones.

The proposed project will result in a significant loss of wetland meadow habitat (approximately 50 acres) at the northwestern portion of the site as a result of grading the golf course and regional Amargosa Creek Improvement flood control basin "B" (the majority of these wetlands would be impacted by grading necessary for the Amargosa Creek Improvement Project). Additional loss of wetlands will result from the several streambed crossings and alterations necessary for flood control and development within the project. Project development will result in disrupting significant portions of the various onsite drainages and associated habitat, including Amargosa Creek, Anaverde Creek, Pine Creek,

Rogers Creek and Ritter Canyon Creek (including partial grading to complete filling and channelization of creeks). Impacts could occur to the seep and spring areas within Cottonwood Springs/Riparian Woodland at the northwestern portion of the property due to grading. It is important that seeps and springs be protected from human intrusion. The Maple Canyon Spring should be protected by signs to keep hikers and horses out of the area.

Due to the wetlands that will be significantly impacted by the project, the applicant will be required to notify the Army Corps of Engineers (ACOE) to apply for a 404 Permit and the California Department of Fish and Game (CDFG) to apply for a 1603 Agreement. ACOE and CDFG have authority to require mitigation measures for such projects to minimize wetland impacts.

The loss of wetland habitat due to development of the Ritter Ranch Specific Plan will result in the following. The vegetation of the developed wetland areas will be destroyed. The wildlife will be destroyed and/or displaced into surrounding wetland habitat resulting in potential overpopulation of those areas. After stabilization of the overpopulated habitat, the net result will be the loss of the amount of wildlife originally inhabiting the developed wetland areas. The loss of wetland habitat and consequent loss of wildlife is considered a significant impact due to the importance of wetland habitat to wildlife as a source of food and shelter and the limited wetland habitats remaining in the region.

Loss of grazing/grassland area due to development of the northwestern and northeastern corners of the project site is not considered significant on an individual project basis. However, due to the presence of sensitive raptor species, this loss is considered a significant cumulative impact. A large portion of the existing Joshua Tree Juniper Woodland would be impacted by the commercial-equestrian area (outside the proposed park boundaries). Transplantation of these trees, according to the required Joshua Tree Observation and Transplantation Plan, would reduce the significance of this impact.

Development of the commercial uses south of Elizabeth Lake Road will result in the loss of Joshua Tree Woodland habitat. This impact can be reduced, however, through adherence to the City of Palmdale's provisions for the protection of such habitat.

Construction of the road system on the north base of the Sierra Pelona will result in the disruption of wildlife access corridors, which is considered a significant adverse impact. This impact can be reduced through the construction of bridges or oversized culverts and open

PREFERRED DEVELOPMENT ENVELOPE SETBACK DISTANCE

Land Use	Resource					
	Non-Riparian Woodland	Non-Tree Wetland	Willow Riparian	Raptor Nest Site	Wildlife Corridor (from center line)	Join To Wood
Single Family Residences 1 - 20 ac. (dist. footprint)	100 ft.	100 ft.	100-400 ft.	1000 ft.	400 ft.	1
Single Family Residences 0.5 - 2.0 acres	100 ft.	150 ft.	200-500 ft.	1000 ft.	400 ft.	1
Single Family Residences < 0.5 acre	100 ft.	150 ft.	250-500 ft.	1000 ft.	400 ft.	1
Multi-Family Residences	100 ft.	150 ft.	250-500 ft.	1000 ft.	600 ft.	1
Roads - > 2 lanes	0 ft.	0 ft.	25-300 ft. & / < 60%	500 ft.	400 ft.	
Roads - ≤ 2 lanes	50 ft.	100 ft.	100-300 ft. & / < 60%	500 ft.	500 ft.	1
Trails - Equestrian	0 ft.	100 ft.	200-400 ft.	1000 ft.	0 ft.	
Trails - Pedestrian	0 ft.	50 ft.	100 ft.	1000 ft.	0 ft.	
Trails - Mountain Bikes	0 ft.	100 ft.	200-400 ft.	1000 ft.	400 ft.	
Active Use Parks	75 ft.	150 ft.	200-400 ft.	1000 ft.	600 ft.	1
Natural Parks	0 ft.	0 ft.	0 ft.	0 ft.	0 ft.	
Commercial/Major Retail	75 ft.	150 ft.	200-400 ft.	1000 ft.	400 ft.	1
Commercial Strip	75 ft.	150 ft.	200-400 ft.	1000 ft.	400 ft.	1
Industrial	50 ft.	100 ft.	150-300 ft.	1000 ft.	400 ft.	1
Schools	75 ft.	150 ft.	200-400 ft.	1000 ft.	600 ft.	1
Electrical Towers	25 ft.	25 ft.	100 ft.	300 ft.	0 ft.	
Golf Course	15 ft. and no overpass	0 ft.	25 ft.	1000 ft.	400 ft.	
Equestrian Center	75 ft.	150 ft.	500 ft.	1000 ft.	600 ft.	1
Fuel Break Width	100 ft.	50 ft.	50 ft.	N/A	0 ft.	1
Culturally Landscaped Open Space	0 ft. and up overpass	0 ft.	0 ft.	250 ft.	400 ft.	
Agricultural	0 ft.	0 ft.	0 ft.	1000 ft.	400 ft.	1
Pipeline - without road	0 ft. with reveg.	0 ft. with reveg.	0 ft. with reveg.	250 ft. with reveg.	0 ft. with reveg.	0 ft. with
Pipeline - with road	15 ft.	50 ft.	25 ft.	250 ft.	200 ft.	1

(Some categories may not apply in each case)

space setbacks (refer to Table 11, PREFERRED DEVELOPMENT ENVELOPE SETBACK DISTANCES) to facilitate wildlife movement across the canyons of Rogers Creek, Pine Creek and Ritter Canyon.

Impacts to wildlife onsite may also occur due to increased pedestrian, mountain bike and equestrian traffic associated with the trail system proposed for Ritter Ranch. Additional impacts could occur to wildlife and vegetation if recreational uses do not remain within the designated limits of the trails. This impact is not considered significant, however, and can be mitigated through posting of signs which stipulate boundaries for trail use and active management of the trails.

Impacts to biological resources can be reduced to some degree by requiring buffer areas between development and areas to remain natural. Table 11, PREFERRED DEVELOPMENT ENVELOPE SETBACK DISTANCES, recommends setback disturbances from developed areas to a number of sensitive biological resources. Setbacks are recommended to preserve the integrity of non-riparian woodlands, non-tree wetlands, willow riparian areas, raptor nesting sites, wildlife corridors, Joshua tree woodlands and Peirson's morning glory habitat. These setbacks are advisory; actual setback distances will be determined at the time that development applications are reviewed when site-specific biological reports are submitted.

The incidence of fire will increase with the increased human activity in the area due to the development of Ritter Ranch and ranch structures would be exposed to fire hazards. Therefore, development of the site must include a system of fuelbreaks to minimize potential for structural fires. The fuelbreak areas will not be included as "natural" open space due to the significant modification of native vegetation that occurs with their construction. The revegetation of slopes at the edge of the development with low combustible plant materials will also serve to reduce fire impacts.

Other Annexation Areas

Future development could result in impacts to the habitat and species found in the 309-acre annexation area portion, particularly the Joshua/Juniper Woodland and Amargosa Creek riparian habitat. Future development plans will require careful review to minimize biological resource impacts, although topographic and seismic constraints are anticipated to limit the development potential of the subject properties.

Offsite

Water quality and volumes generated by the proposed project could potentially impact downstream riparian habitat. However, with proposed hydrological improvements (refer to Section IV.C, WATER RESOURCES), these impacts should be reduced to less than significant levels. The project use of year-round irrigation will result in positive impacts, as the regular flows are expected to sustain greater wetland growth downstream. In addition, low flow levels shall be maintained in any diverted stream channels to minimize impacts to established wetland areas. Disturbances of wildlife may also occur due to traffic noise, construction noise, light and glare, and the introduction of cats, dogs and children associated with the proposed site development. These impacts can be reduced through adherence to City regulations and implementation of the proposed mitigation measures.

Offsite Infrastructure Improvements

The regional Amargosa Creek Improvement Project will require significant creek channelization and roadway fills over existing vegetation. Mitigation plans are in process, examining opportunities to provide or enhance wetland areas, such as within proposed flood control basins. Mitigation for wetland loss will be provided in accordance with the U.S. Army Corps of Engineers 404 Permit process (in process) and the California Department of Fish and Game 1601/1603 Agreement Process.

MITIGATION MEASURES

- #37. Prior to Development Application approval, setbacks ~~or other alternatives identified in a site specific biological study~~ will be provided to reduce impacts to raptor nesting sites and other biological resources as listed in Section IV.D, Table 11, PREFERRED DEVELOPMENT ENVELOPE SETBACK DISTANCES. However, actual setbacks for each resource may vary less or more than the recommended distance as determined by a site-specific biological report, reviewed and approved by the Director of Planning. Setbacks less than the recommended distance may constitute a locally significant impact.
- #38. At the time of construction of improvements, bridges or oversized culverts, as determined by a qualified biologist and reviewed and approved by the Director of Planning shall be constructed within the canyons of Rogers Creek, Pine Creek, and

Ritter Canyon where development areas or access roads would isolate wildlife. This would allow wildlife movement across the site and into other portions of the region.

- *#39. Fuelbreaks shall be from 20 to 100 feet in width and shall be manually cleared to avoid exacerbation of erosion. The fuelbreak system must conform to fire code standards. The fuelbreak system shall not be computed for credit purposes as open space due to the significant modification of the native vegetation which is required for the fuelbreak.
- #40. Prior to Development Application approval, portions of the site shall be designated for restoration, enhancement or expansion of wetland habitat. Portions to be designated will be subject to Director of Planning approval but, at a minimum, the proposal shall equate to a 1:1 replacement of impacted wetlands. A Wetlands Restoration Plan, indicating specific guidelines, designation of areas suitable for mitigation, and an explanation of methods which will assure permanent preservation, shall be submitted for review and approval by the City of Palmdale, California Department of Fish and Game and U.S. Army Corps of Engineers. Said plan shall be consistent with restoration required for the Amargosa Creek Improvement Project.
- #41. As directed by the City, the applicant shall conduct periodic removal of Tamarisk infestations (to include at minimum an initial clearing of specimen trees followed by annual juvenile Tamarisk removals for the next two years). In addition, infestations of *Arundo donax*, if any are located within the property, shall be eradicated to ensure that the development does not act as a point source for continued infestations into the National Forest.
- #42. Plants such as Pampasgrass, African Fountaingrass, Tamarisk, Castorbean, *Arundo donax*, and exotic Fescues shall not be planted within the Specific Plan area. A review of the Landscape Plan's plant selection shall be made by a qualified revegetation biologist approved by the City Engineer and Director of Planning prior to Landscape Plan approval. The applicant shall also require that residences exclude these plants from their landscaping (as through Covenants, Codes and Restrictions enforced by a Homeowners Association).
- #43. Trails within the natural open space areas shall prohibit the recreational use of four-wheel and three-wheel vehicles, motorized dirt bikes and motor cross bicycles.

Special gates and barriers shall be installed and maintained at trail access points to ensure that recreational vehicle access is prohibited.

- #44. The Applicant shall post signs along trail systems which designate trail boundaries for recreational uses, in order to minimize incidental disruption to open space, vegetation and wildlife.
- *#45. Slopes at the edge of the development shall be revegetated with low combustible plant material as approved by the City Engineer.
- #46. The Specific Plan shall include a condition to either exclude the maintenance of horses on private property, due to too small lot size, or to maintain such animals in corrals of specific size, as determined appropriate by the City. -In large lots with adjacent natural areas, it is important to limit grouping of horses or other livestock to prevent destruction of native plants.
- #47. The Applicant shall apply for and receive a 404 Permit from the Army Corps of Engineers and a 1603 Agreement from the California Department of Fish and Game prior to Grading Plan approval in areas which include wetlands due to the projects impact on lands under the jurisdiction of these areas.
- *#48. Prior to Development Application approvals, focused surveys shall be conducted by a City approved biologist to establish the presence or absence of sensitive species (as defined by ~~Federal, State, or Local laws the City of Palmdale Planning Director~~) on the development site. Should sensitive species be present, applicable mitigation shall be implemented per Federal, State and Local Endangered Species Protection regulations as determined necessary by the City Planning Director.
- #49. The Joshua Tree Woodland area shall be protected by *in situ* preservation of the habitat or, at the option of the City, acquisition of equivalent, offsite habitat within the Sphere of Influence of the City of Palmdale. Preservation is considered to include fencing of the site and dedication of an open space easement to the City of Palmdale. Areas adjacent to the woodland should have a 50 to 150-foot setback from the Joshua Trees, ~~or other measures as recommended in a site-specific biological study~~ (refer to Table 11, PREFERRED DEVELOPMENT ENVELOPMENT SETBACK DISTANCES).

- a. Where possible, ~~project development of residential or commercial structures~~ within the Specific Plan area should be designed to avoid displacement or destruction of Joshua Tree habitat. Areas adjacent to the woodland should have a 50-foot setback from the Joshua Tree plants ~~unless a shorter distance is identified in a site-specific biological report.~~ Within that setback, native plant cover should be restored to natural habitat values to serve as a buffer if such plant cover is not present.
 - b. Upon implementation of the project, any Joshua Tree plants that are removed will be transplanted to onsite landscaped areas and/or offsite.
 - c. A Joshua Tree Preservation and Transplantation Plan will be developed and submitted to the City of Palmdale Director of Planning for review and approval prior to grading permit issuance.
- #50. The Maple Canyon Spring shall be protected by ~~ensuring that trails do not direct people to the vicinity of the spring. The McDill Loop trail depicted on Exhibit 24 of the Specific Plan shall be reviewed to determine its proximity to the spring. The alignment of this trail will be modified if field inspections determine that the spring is visible from the trail. through the use of signs to keep hikers and equestrian users out of the area. The signs shall be erected prior to occupancy of any residential unit on the project site~~

UNAVOIDABLE SIGNIFICANT IMPACTS

Although project design has substantially reduced loss of sensitive habitat, development of the Ritter Ranch Specific Plan and other annexation areas will result in the loss of over 3,000 acres of habitat, with loss, displacement or disruption of associated wildlife. Therefore, development of the proposed Specific Plan would result in significant adverse impacts to biological resources even after all feasible mitigation is applied. In addition, the implementation of the proposed project in combination with future developments in the surrounding area will result in a cumulative loss of natural resources which is considered a significant effect.

E. NOISE

This section addresses potential noise impacts of the proposed project. Information in this section is based on the "Noise Impact Assessment, Ritter Ranch Specific Plan, Antelope Valley, California" prepared by Giroux & Associates in October, 1990 which is included in Appendix F, NOISE ASSESSMENT.

EXISTING CONDITIONS

Background

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is generally defined as unwanted sound. Sound is characterized by various parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests and the sound pressure level or energy content of a given sound wave. In particular, the sound pressure level (SPL) has become the most common descriptor used to characterize the loudness of an ambient sound level. The unit of sound pressure ratioed to the faintest sound detectable by the human ear is called a decibel (dB). Because sound or noise can vary in intensity by over one million times within the range of human hearing, a logarithmic decibel scale, similar to the Richter Scale used in earthquake strength characterization, is used to keep sound intensity numbers at a convenient and manageable level. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity (middle A) are factored more heavily into sound descriptions in a process called "A-weighting" written as dB(A).

Time variations in noise exposure are typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called L_{eq}), or, alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. Finally, because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law requires that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL). An interior CNEL maximum of 45 dB(A) is mandated by the State of California Noise Insulation Standards (CAC, Title 24, Part 6, Section T25-28) for multiple family dwellings and hotel and motel rooms. A 45 dB CNEL is also typically considered a desirable interior noise exposure for single family dwelling units. Interior noise levels within residential structures with closed

windows are typically 20-25 dB lower than exterior noise levels. Therefore, an exterior noise exposure of 65 dB CNEL is generally the noise land use compatibility guideline for new residential dwellings in California. Because commercial or industrial uses are not occupied on a 24-hour basis, the exterior noise exposure standard for these less sensitive land uses generally is somewhat less stringent.

The Department of Health Services Office of Noise Control specifies that a noise exposure in the range of 60-70 dB CNEL is considered conditionally acceptable for noise-sensitive single family residential uses after a careful analysis has been completed to insure that all noise impact mitigation has been implemented as fully as possible. In many communities where a quiet environment is considered an important asset that enhances natural scenic values, more stringent land use compatibility guidelines have often been adopted. A noise level of 65 dB CNEL is generally considered a "conversation level" of noise. Noise above 65 dB will intrude upon a normal conversation. Noise levels below 60 dB are considered the most desirable noise exposure for residential and other very noise-sensitive land uses. Table 12, NOISE AND LAND USE COMPATIBILITY STANDARDS, summarizes the recommended noise/land use compatibility levels for various land uses. In order to enhance the semi-rural environment of Palmdale, the Noise Element of the Draft General Plan specifies a 60 dB CNEL exposure as the residential and other noise-sensitive land use target noise exposure level.

Existing Noise Levels

Existing noise levels within the Antelope Valley derive mainly from vehicular sources on highways and secondary roads in the area. Aircraft noises constitute an occasional short-term noise intrusion, but their integrated contribution over a 24-hour CNEL exposure period is small except within the vicinity of Air Force Plant 42 or Edwards AFB. In order to better define existing baseline noise levels, a limited on-site noise monitoring study was conducted at five locations near the Ritter Ranch project site where development-related traffic may potentially impact existing traffic noise distributions. The monitoring data was also used to develop a site-specific data base in order to calibrate the federal highway traffic noise computer model (FHWA-RD-77-108). By matching the computer output to actual measurements, it is possible to accurately calculate noise exposure at non-measurement locations, as well as project future noise exposure resulting from changing areawide traffic levels.

Table 12

NOISE AND LAND USE COMPATIBILITY STANDARDS

<u>Land Use</u> <u>Acceptable</u> ²	<u>Community Noise Exposure, Ldn or CNEL (dB)</u>	
	<u>Normally Acceptable</u> ¹	<u>Conditionally</u>
Residential - low density single-family, duplex, mobile homes	50-60	55-70
Residential-multi-family	50-65	60-70
Transit lodging - motels, hotels	50-65	60-70
Schools, libraries, churches, hospitals, nursing homes	50-65	60-70
Auditoriums, concert halls, amphitheaters	-----	50-70
Sports arena, outdoor spectator sports	-----	50-75
Playgrounds, neighborhood parks	50-70	-----
Golf courses, riding stables, water recreation, cemeteries	50-75	-----
Office buildings, commercial, professional	50-70	67.5-77.5
Industrial, manufacturing, utilities, agriculture	50-75	70-80

SOURCE: Giroux & Associates (Appendix F) and Draft General Plan Noise Element (Table N-6).

¹ Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

² New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Onsite noise monitoring was conducted on October 10, 1989 using a B&K model 2230 Integrating Sound Level Meter with Type I accuracy. Monitoring was conducted in the energy equivalent (Leq) mode during 30-minute monitoring periods. Traffic counts, including auto/truck distributions, were made during the monitoring period with a speed check at the beginning and end of each period. Table 13, EXISTING NOISE LEVELS, summarizes the results of the existing noise monitoring in the project area. Table 15 also shows the comparison between the observations and the computer model based on the observed set of traffic input parameters. The most noticeable difference between the observations and model was that extraneous, non-traffic noise sources contaminated the readings such that the model and measurement agreed perfectly near the freeway, but observed noise levels were slightly (about 1.5 dB) higher than the model prediction along Palmdale Boulevard/Elizabeth Lake Road because of nearby off-road equipment or other activities. Without such activities, the FHWA Model appears to be a well-suited tool for accurately assessing changes in the local noise environment associated with areawide development.

IMPACTS

Two characteristic noise sources are typically identified with land use intensification such as that proposed for the Ritter Ranch development. Construction activities, especially heavy equipment, will create short-term noise increases near any individual project site. Such impacts may be important for nearby noise-sensitive receptors when one subdivision is being built while others have been completed. Upon completion, project-related traffic will cause an incremental increase in areawide noise levels throughout the Antelope Valley area. This increase in noise levels will be a function of traffic volumes generated and will, therefore, gradually increase as Ritter Ranch and surrounding areas are developed.

The area that will be affected by development of the project is rapidly evolving from a semi-rural to a suburban pattern of land use. Noise exposure will accordingly undergo a period of long-term transition during planned land use intensification of this, and several other nearby project sites. Noise levels are logarithmically proportional to traffic volumes, such that an anticipated ten-fold increase in volumes along Elizabeth Lake Road or Avenue S between 10th and 20th Streets West will create a 10 dB increase in noise levels. A 10 dB increase is perceived by human ears to be about twice as loud as before. A 10 dB noise increase also expands the zone of undesirable noise exposure by almost a factor of 5 from the existing recommended noise set-back distance (where the distance meeting the 60 dB CNEL General Plan noise guideline is around 100 feet from the centerline for several

Table 13

EXISTING NOISE LEVELS

Location	Centerline (Feet)	Distance to Auto/Med/Hvy (VPH)	Speed (MPH)	Noise Level (dBA)		Comment
				Measured	Model	
W of Hwy 14	100'	948/54/60	65	71.4	71.4	—
Palmdale Blvd. near Tierra Subida	50'	576/12/6	50	69.0	67.5	a
Palmdale Blvd. near Ocotillo	50'	174/12/0	50	65.3	62.9	a
Elizabeth Lake Road near 25th St. W	50'	138/6/0	60	64.8	63.5	b
Elizabeth Lake Road near Godde Hill Road	50'	120/0/6	60	64.4	63.8	c

NOTES:

VPH = Vehicles Per Hour

Auto/Med/Hvy = Number of automobiles, medium trucks and heavy trucks

COMMENTS:

a = Construction equipment operating nearby

b = Survey party shouting instructions nearby

c = Road repair crew working nearby

Source: Giroux & Associates (Appendix F)

existing roadways, the distance of unacceptable noise exposure may expand to 500 feet unless adequate mitigation in the form of noise barriers or of siting less sensitive land uses near major roadways is implemented). Any existing or currently planned development must incorporate such mitigation, if future noise exposure impacts are to be avoided, as the major roadways carry their design traffic volumes during the next two decades of anticipated growth.

Construction Noise Impacts

Temporary construction noise impacts vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated initially by earth-moving activities, then by foundation construction, and finally by finishing construction. The earth-moving sources are the noisiest, with equipment noise ranging from about 70 to 90 dB(A) at 50 feet from the source. Spherically radiating point sources of noise emissions are atmospherically attenuated by a factor of 6 dB per doubling of distance. The quieter earth-moving noise sources will, therefore, drop below 60 dB by about 300 feet from the source while the loudest sources may still be easily detectable above the local background beyond 1,000 feet from the construction area. As portions of the project site are built out, completed structures will partially shield adjacent receptors such that the heavy equipment construction noise "envelope" will be somewhat reduced in portions of the local area during later phases of the development. Construction noise sources are not readily relatable to a noise standard because they occur only during selected time periods and the noise generated varies sharply with time and location. The penalty associated with noise disturbance during quiet hours, and the nuisance factor accompanying such disturbance usually leads to time limits on grading activities imposed as conditions on grading permits. Construction activities associated with the Ritter Ranch development will be permitted between the hours of 6:30 a.m. to 8:00 p.m. Monday through Saturday as indicated in the City of Palmdale Municipal Code Section 828.030.

Materials handling and small stationary noise sources during later stages of construction have lower individual noise levels, and their corresponding noise impact zones are, therefore, much smaller. Noise emissions from concrete mixing trucks, fork lifts, compressors, pumps, etc., are generally attenuated to acceptable levels within 500' of the noise source. As structures are built on the various project parcels, they will help protect the nearest receptors and further confine the primary noise impact to within any individual project site. Smaller, discrete sources such as generators or compressors are also more readily controlled with heavy-duty mufflers specifically designed to reduce noise impacts in

noise-sensitive environments. Their mobility and small size also allow for their placement in areas where structures, walls or other barriers can increase the noise shielding for any nearby sensitive receptors.

Although noise impacts will be potentially significant during the construction of the project, it is anticipated that these significant noise impacts will be reduced to less than significant levels with required mitigation measures and will cease upon project completion.

Project-Related Vehicular Noise Impacts

Long term noise concerns from the increased urbanization of the project area center primarily on mobile source emissions on the roadways surrounding the project site. The Ritter Ranch development at full buildout of ~~7,200~~ 7,000+ homes (generating approximately 10 trips per dwelling unit per day) plus associated commercial, recreational and institutional uses is expected to generate 89,180 Average Daily Trips (ADT). Future changes in vehicular noise distributions were calculated using the California specific vehicle noise curves (CALVENO) in the federal roadway noise model (the FHWA Highway Traffic Noise Prediction Model, FHWA-RD-77-108) as previously described in the existing noise environment characterization. The model calculates the Leq noise level for a particular reference set of input conditions, and then makes a series of adjustments for site-specific traffic volumes, distances, speeds or noise barriers. Table 14, TRAFFIC NOISE IMPACTS, summarizes the 24-hour CNEL levels at 100 feet from the roadway edge along a number of Palmdale area roads for existing conditions, for future predicted growth without the proposed project, and for future growth including the proposed project based on traffic volumes provided by the Ritter Ranch traffic impact study (June, 1990). Table 16 also shows the distance from the roadway centerline to the 60 dB CNEL contour to indicate the distance to normally acceptable noise exposure (also shown in Exhibit 14, NOISE CONTOUR MAP). In areas where the distance set-back needed to meet 60 dB CNEL is excessive, noise abatement (noise walls and/or window/structural upgrades) must be incorporated into project design to achieve the maximum recommended 60 dB CNEL exposure.

Table 16 shows that the increased traffic will alter the rural character of the presently perceived noise environment to a more typically suburban condition. According to the California Department of Health Services Office of Noise Control and the City of Palmdale Draft General Plan, a noise exposure of 60 dB CNEL is acceptable for noise sensitive land uses. The future 60 dB CNEL for residential and other sensitive uses will vary from approx-

imately 100 feet from the centerline along lightly traveled roads such as a portion of City Ranch Road to over 400 feet along the most heavily traveled roadways near the Antelope Valley Freeway. Within the Ritter Ranch Specific Plan area, the setback distance to meet the City's noise standard, in the absence of any other mitigation, extends as far as 320 feet, but varies considerably as follows:

<u>Roadway*</u>	<u>Distance to 60 dB CNEL from Centerline</u>
Elizabeth Lake Road	154' - 235'
City Ranch Road	102'
Ritter Ranch Road	179' - 321'
Bouquet Canyon Road	96'
Ranch Center Road	144' - 149'

* = Within or adjoining Ritter Ranch

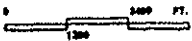
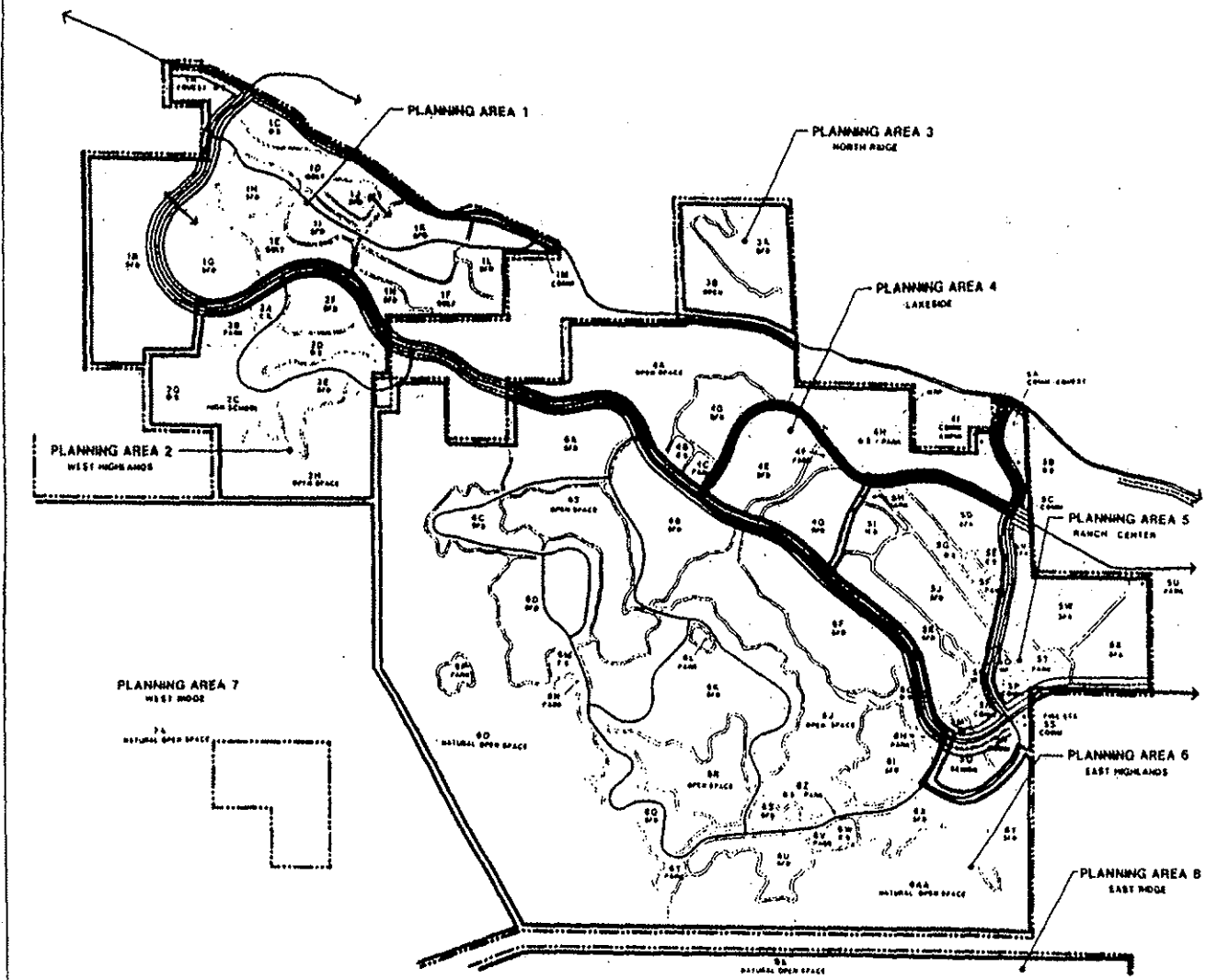
The set-back requirements along these roadways necessary to avoid unacceptable noise levels would severely limit the development potential of the project area. Therefore, noise abatement will need to be integrated into project planning. Noise mitigation options for the primarily residential land uses include the use of perimeter noise walls or berms, placement of parking facilities for multiple family dwellings near the street as a barrier, or locating commercial uses near the roadway to act as a barrier for residential uses away from the street. In areas where a 60 dB CNEL exterior noise exposure cannot be attained because of terrain or multiple story dwellings that cannot be adequately shielded, an alternative approach is to achieve an acceptable interior exposure by closing acoustically rated windows and turning on an internal ventilation system. This approach is less preferred because it confines people inside their homes, but the need for minimizing sleep disturbance is an overriding concern in noise mitigation planning.

Ritter Ranch development plans are not yet sufficiently detailed as to allow for the specific identification of noise constraints or mandatory mitigation measures on any individual parcel. A site specific noise study will, therefore, be required as development applications are filed in order to adequately protect each community from exterior traffic noise intrusion.

● *Proposed Amphitheater*

The Ritter Ranch Specific Plan proposes a seven-acre amphitheater in the northeast portion of the property (Planning Area 4I). The proposed site is located off Ranch Center Drive

Symbol



Rittler Ranch Specific Plan

immediately south of Lazy T Ranch (within approximately 500 feet). This may result in occasional significant noise impacts upon the Lazy-T Ranch during musical events and/or large gatherings of people.

Other Annexation Areas

Potential future development in the 309-acre annexation area portion is assumed to result in a worst-case scenario of 309 dwelling units, or approximately 3,100 Average Daily Trips (excludes the 140-acre microwave station sites). Table 14 and Exhibit 14 are based on year 2010 traffic projections as contained in the Ritter Ranch Traffic Study, which included similar assumptions for development of these adjacent annexation areas. Furthermore, the estimated 3,100 ADT would not significantly affect future noise projections in Table 14 or Exhibit 14, as this corresponds to a CNEL increase of less than 1 dBA. Generally, the lower limit of human perception for changes in noise levels is 1 dBA to 3 dBA. Therefore, the increase in traffic noise levels is anticipated to be less than significant in terms of ambient noise level increases.

With implementation of recommended noise mitigation measures, the onsite noise impacts of the proposed project are anticipated to be less than significant. However, even this slight increase in noise levels will contribute cumulatively to noise impacts experienced beyond the project area.

Offsite Noise Impacts

As shown in Table 14, TRAFFIC NOISE IMPACTS, project plus cumulative development traffic would result in offsite areas being exposed to noise levels in excess of 60 dB CNEL, particularly along Elizabeth Lake Road. However, the majority of sensitive receptors are located west of Godde Hill Road, where traffic volumes drop considerably. East of Godde Hill Road, several existing residences in the Ritter Ridge area and the Lazy T Ranch will be exposed to significant noise levels under future traffic conditions.

Offsite Infrastructure Improvements

In addition to project noise impacts, regional Amargosa Creek Improvement Project facilities will result in temporary construction noise impacts along Elizabeth Lake Road (road widening noise impacts are addressed in this EIR, which assumes ultimate road configurations and cumulative traffic levels for the noise analysis).

MITIGATION MEASURES

- *#51. All construction and general maintenance activities, except in an emergency, shall be limited by City of Palmdale Municipal Code Section 828.030 to the hours of 6:30 a.m. to 8 p.m. Monday through Saturday. The operation of any machine, mechanism, device or contrivance during construction shall comply with noise limits in the City of Palmdale municipal noise ordinance.
- *#52. ~~Development along internal and adjacent arterials will incorporate design measures or structural measures which will reduce noise levels to acceptable levels within the living or recreational portions (as defined by the City) of any lot. The measures that may be utilized to reduce noise impacts include placement of non-residential buildings adjacent to the arterial roadway, increasing the setbacks along the roadway, creation of landscaped berms or other unobtrusive barriers. The acceptable noise level CNEL which will be applied to future projects will be that level which is in place, either by ordinance, resolution, or General Plan policy, at the time that future development applications are deemed complete. Acoustical barriers shall be constructed along internal and adjacent arterials where necessary to reduce the CNEL to 60 dBA within the living or recreation portions (as defined by the City) of any lot.~~
- #53. Elementary school and neighborhood park development should avoid the most heavily traveled village roadways to minimize traffic noise intrusion on these uses requiring relative quiet for concentration or serenity. Where necessary, noise mitigation measures such as barriers or sound walls, shall be employed.
- ~~#54. The applicant shall participate in a regional noise mitigation program, if developed by the City, by funding a prorata share of offsite noise mitigation.~~
- #55. The proposed amphitheater shall require a Conditional Use Permit. As part of the CUP review process, the applicant shall provide City staff with sufficient detail to indicate that the amphitheater will not adversely affect offsite areas (as in orientation, screening and permitted activities). Adverse noise impacts shall be determined based on City Noise Ordinance provisions (with respect to peak noise levels and nuisance noise). The applicant shall also provide City staff with possible alternative locations more proximate to residential areas, as within the Town

Center area, but the alternative locations should not impact noise sensitive uses such as residential areas.

UNAVOIDABLE SIGNIFICANT IMPACTS

The noise impact analysis indicates a cumulative significant noise impact from project-related traffic on receptors within more heavily developed areas of Palmdale and near heavily traveled arterials within project areas. Implementation of the above measures will mitigate the onsite noise impact to less than significant levels. If a City-wide noise mitigation program is adopted by the City, the funding by existing and proposed development for the mitigation program could substantially reduce offsite cumulative noise impacts.

F. AESTHETICS/LIGHT AND GLARE

This section evaluates the aesthetic impacts associated with the proposed Ritter Ranch Specific Plan Project and the 309-acre portion of the Other Annexation

Areas (the 140-acre microwave station sites will not be zoned for development). These impacts, due to grading activity, building construction, and vegetation removal are analyzed in relation to existing and surrounding site conditions. The following items are discussed in this section: public scenic views, introduction of new sources of light and glare, and the compatibility of the proposed project with adjacent local aesthetic resources. Mitigation measures are recommended to reduce the aesthetic impacts associated with the implementation of the project. Information in this section was compiled from site photographs and a site survey conducted by RBF in July, 1990. For additional information regarding potential impacts to area aesthetics, refer to Section V, LONG TERM IMPLICATIONS OF THE PROPOSED PROJECT.

EXISTING CONDITIONS

Onsite

The project area primarily consists of open space which is mountainous with valleys, ridges and gently rolling slopes. The views from the higher ridges include the City of Lancaster to the north and the City of Palmdale to the northeast. The Ritter Ranch site also has scattered Juniper Trees, Chaparral and scrub oak vegetation throughout the site with vegetation more dense on the north-facing slopes (see Exhibit 15, SITE PHOTOS). Within the upper northwestern area of the project is Rogers Creek and Pine Creek. These creeks slightly meander in a northerly direction and converge with Amargosa Creek, the primary drainage for the northern and western areas. The Anaverde Creek drains the southern and eastern site portions. As a whole, the Ritter Ranch is visually dominated by the Sierra Pelona Mountains in the south, Anaverde Valley in the central/east areas, Amargosa Creek/Leona Valley in the northwest, and a series of ridges trending southwest to northeast separating Leona and Anaverde Valleys. The southern Sierra Pelona ridgeline (proposed for open space) affords views of Santa Clarita and beyond to the south and west, and the greater Palmdale/Lancaster area to the north and east. The south central onsite area of Ritter Ranch consists of agricultural grassland and jeep trails (Planning Areas 4 and 6). In the northwestern area of the Ritter Ranch project, just south of Elizabeth Lake Road, views include a barn, the remains of the Ritter Ranch Hunting Club and a pond to the southwest of the abandoned club (across from Godde Hill Road). Within the northern onsite area of

the proposed Ritter Ranch project are several sheds (Planning Area 1). The northwestern area also includes a corral which is adjacent to a dirt road and just west of Pine Creek. Within the eastern locale of the project also lies a ranch home, two sheds and a barn (eastern Planning Area 6). To the southwest of the ranch is a windmill and a water tank. Mt. Hauser (offsite) and Mt. McDill contain microwave transmission stations visible from much of the area to the north. Several major electrical transmission lines cross the site (affecting all Planning Areas but 1 and 8).

Within the eastern area of the Ritter Ranch project (Planning Area 5) are several jeep trails, existing transmission lines and broad alluvial plains where Anaverde Valley begins. A grading test site (for rock rippability) can also be observed within the eastern area.

The viewshed of the western onsite area consists of steep hillsides with various jeep trails which meander throughout the area. The western area of the project includes Mt. McDill (elevation 5,187 feet) which overlooks much of the western area, both in a northerly and southerly direction.

Other Annexation Areas

The annexation areas parallel the Amargosa Creek, which runs in a west to east direction along Elizabeth Lake Road. Along Amargosa Creek, there is a narrow riparian corridor with mature Cottonwoods and Willows. The microwave station sites are located at Mt. McDill and Mt. Hauser, affording panoramic views of the area. The sites are heavily disturbed by fencing, dirt access roads and microwave station equipment.

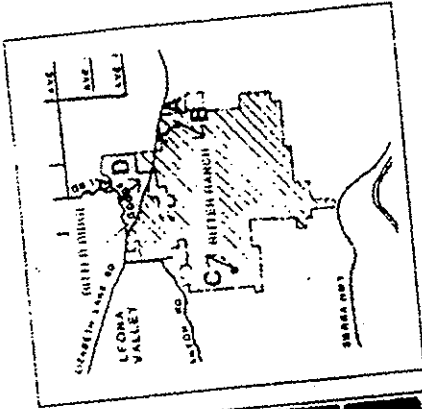
Messer Ranch, located along Ritter Canyon, is surrounded to the east, south and west by the proposed Ritter Ranch development areas. The ranch is comprised of one house and a barn, and currently has an almond orchard which is partially within the Ritter Ranch property boundary, and has not been harvested or maintained for quite some time. Also located within the annexation area is the Lazy T Ranch (west of the proposed Ranch Center Drive). This ranch consists of one ranch house, one trailer, several vehicles, horse stalls and one barn.

Surrounding Land Use

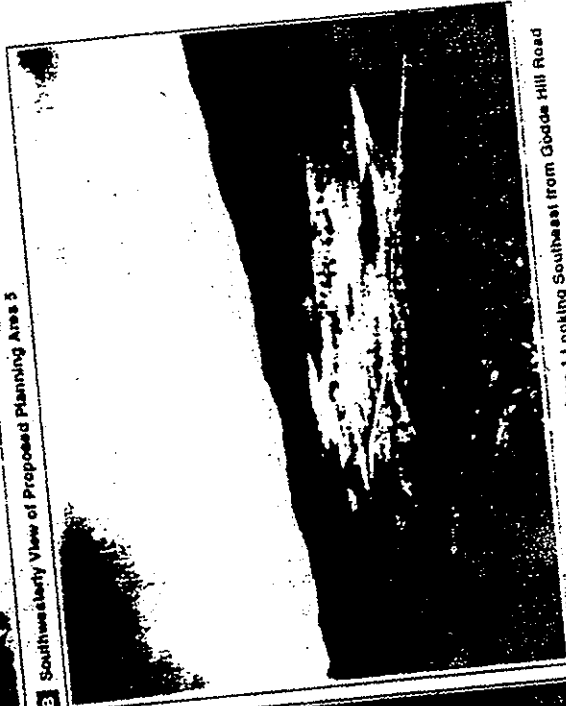
Immediately north of the Messer Ranch area and the Ritter Ranch Specific Plan project site is Ritter Ridge. The Ritter Ridge area is primarily made up of open space land. Planning area 1 of Ritter Ranch will have views to the northeast, of Ritter Ridge and of the single-

Site Photos

Exhibit 12



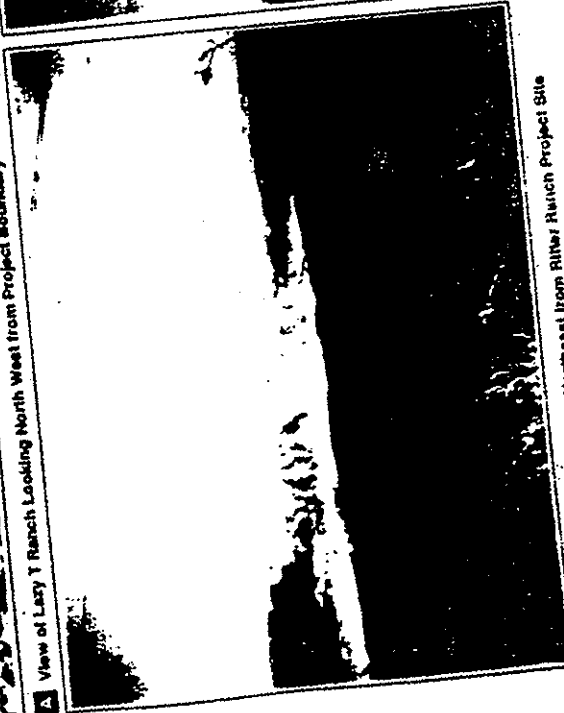
B Southwesterly View of Proposed Planning Area 3



D View of Proposed Planning Area 1 Looking Southeast from Godde Hill Road



A View of Lazy T Ranch Looking North West from Project Boundary



C View of Ritter Ridge Looking Northeast from Ritter Ranch Project Site

family homes adjacent to Elizabeth Lake Road. Located within the northwestern offsite area, just southwest of the abandoned Ritter Ranch Hunt Club is Valley High Ranch. To the northeast, the Santa Fe Hills Specific Plan area falls within the City of Palmdale's General Planning area and currently consists of open space. To the distant north is the City of Lancaster, located beyond Ritter Ridge and the California Aqueduct. The California Aqueduct is located to the north and northeast of Ritter Ridge. The inhabitants of the City of Lancaster have distant and restricted views of the Ritter Ranch area.

To the west of Planning Area 1 lies the Leona Valley community, which is comprised of single family (Low Density) residential units. Located outside the northwestern boundary of Planning Area 1 are several homes and the Valley High Ranch. Northwest of the Ritter Ranch area and west of Godde Hill Road lies Portal Ridge. The western offsite area of the Ritter Ranch Specific Plan entails mainly open space area with Bouquet Canyon, the Sierra Pelona Ridge and an extensive forested area within the extreme western portion of the project. The western area also hosts several springs and firebreak trails as well as Bouquet Canyon Road.

The southwestern offsite area of the Ritter Ranch project includes offroad vehicle trails and Fryingpan Springs site. The southern offsite area is also made up of Letteau Canyon, Willow Springs Canyon and Hauser Canyon (Santa Clara River/Los Angeles basin), in addition to two existing ranches. To the immediate south is Lannan Ranch, which is located between Letteau Canyon and Willow Springs Canyon. Annan Ranch is located to the west of Letteau Canyon. Located within the extreme southern offsite area, immediately south of the Sierra Highway Freeway, are the rural communities of Agua Dulce, Summit and Acton.

To the east of the project is the Anaverde Valley and the downstream portion of Anaverde Creek running in a west to east direction. Located within the eastern offsite area of the Ritter Ranch project is a corral, immediately adjacent to the alignment of 40th Street West, in the southwest portion of City Ranch. In addition the Antelope Valley Landfill is located to the east. The San Andreas Rift crosses in a northerly direction into the upper regions of the Ritter Ranch area. Located to the distant northeast is the City of Palmdale.

IMPACTS

Onsite

Initially, construction related activities will decrease the natural viewshed area, however, upon project completion, residential units, commercial uses, streets/roads and street light

and infrastructure lighting will also affect these areas with permanent impacts. Impacts resulting from the project will primarily result from the removal of natural habitat/open space, grading of hillsides and filling portions of natural stream courses, thus significantly affecting the aesthetic character of the area. Thick areas of Juniper Trees and scrub oak are located along most north facing slopes. In areas where development may affect these trees, significant adverse impacts may result due to tree removal and/or disruption. Although project design has provided substantial mitigation in the form of clustered development and extensive natural open space, significant impacts will remain after available mitigation.

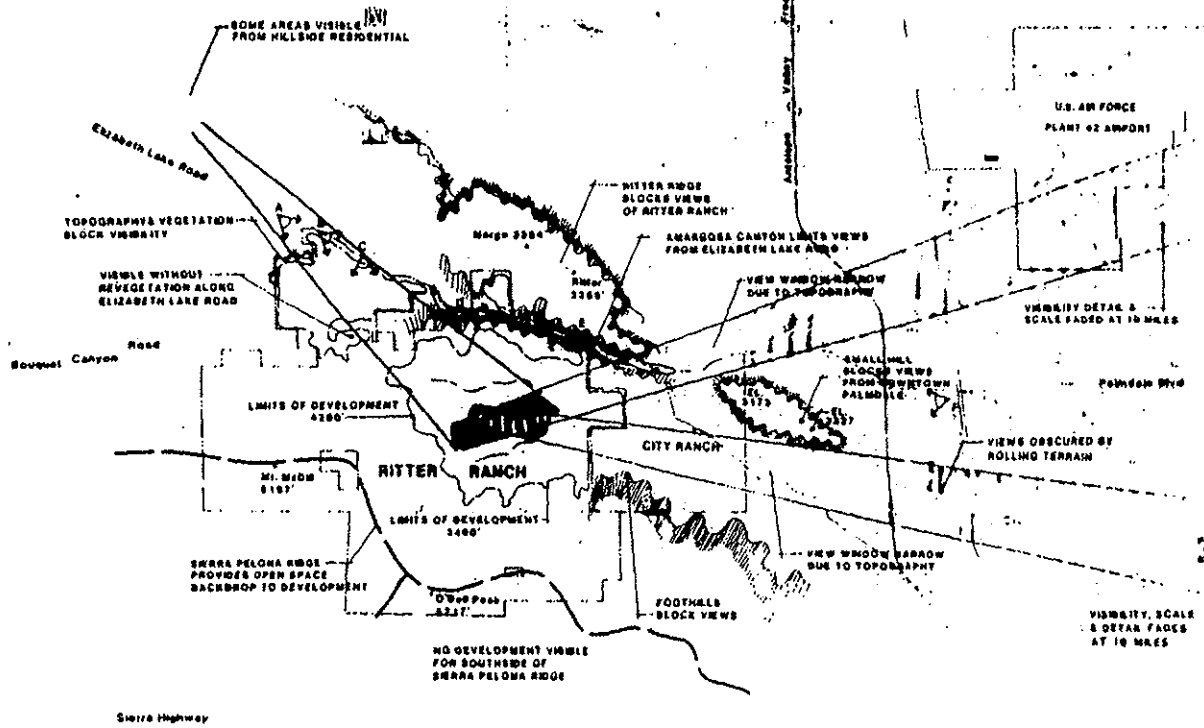
Offsite

The communities surrounding Ritter Ranch as well as motorists travelling along Elizabeth Lake Road and Antelope Valley Freeway will be affected by construction related impacts. Most noticeably, these impacts will be in the form of glare from machinery, dust from grading and trucking, and the general reduction of the aesthetic quality resulting from the removal of the natural landscape. These temporary impacts will be reduced to less than significant levels with implementation of proper mitigation measures and will cease upon project completion (depending on the extent of incidental damage, some natural vegetation may take several years or more to re-establish).

The northeastern area of Ritter Ranch will not be visible by distant northern areas due to intervening topography. However, these Anaverde Valley areas will be readily visible from the east, including City Ranch and distant areas in south Palmdale (see Exhibit 16, VIEWSHED ANALYSIS). The upper northwestern development area (Planning Areas 1 and 2) will be directly visible from the community of Leona Valley. The light and glare are anticipated to be a direct consequence of cars, lights, windows, and of other types of reflective material. The central area of the project (Planning Area 6), which will be constructed on the hillsides of a low ridge (maximum elevation of approximately 4,250 feet), will have an extensive viewshed of the City of Lancaster and the southern area of the City of Palmdale (as the intervening Ritter Ridge only blocks views from the north, and is approximately 1,000 feet lower). The primary significant impact concerning the viewshed upon these cities is the direct visibility from south Palmdale during the day and light and glare which will be emitted from the development during the evening and night hours (affecting existing "dark sky" views of the project). During the day, the 5-10 mile distance from the City of Lancaster should reduce visual impacts to less than significant levels.

110th W 100th W 90th W 80th W 70th W 60th W 50th W 40th W 30th W 20th W 10th W Division 6 10th E 20th E 30th E 40th E

Symbol



Ritter Ranch Specific Plan

The existing view of the Ritter Ranch property from the scenic highway of Elizabeth Lake Road will be altered on certain segments of the roadway. The current view of open space and mountainous terrain will be replaced by views of a master planned residential development. Views of the property from much of Elizabeth Lake Road are limited by existing topography and vegetation, however the property will be visible from portions of the roadway in the south Palmdale area and near the northwestern portion of the site. The development will also be visible from the Antelope Valley Freeway between Avenue P and Avenue Q and between Avenue R and Avenue S.

The proposed Equestrian Center (Planning Area 1A), amphitheater (Planning Area 4I) and Water Reclamation Plant (Planning Area 4H) could result in significant aesthetic impacts, depending on site-specific location, topographical screening, orientation and landscape screening. The amphitheater and Water Reclamation Plant may be visible from the Lazy T Ranch area, although the Plant may be substantially screened from much of Elizabeth Lake Road by a low ridge. The Equestrian Center is proposed at the northwestern site corner immediately adjacent to Valley High Ranch and large rural lots (onsite and offsite, across Elizabeth Lake Road).

The Ritter Ranch Specific Plan has incorporated several design features to minimize aesthetic impacts (although significant impacts will still remain). These include the following:

- Enhanced landscaping and increased rear yard setbacks for PA3 homes most visible from Elizabeth Lake Road.
- Contour grading and curvilinear streets in hillside areas.
- Medium to dark earth tones for buildings in view sensitive areas.
- Architectural treatments to minimize high walls facing view areas (use of single story structures, setbacks, and roof pitches that parallel topographic contours).
- Prohibiting red tile roofs in hillside areas. It is anticipated that Planning Areas 5 and 6 (Anaverde Valley) within the Ritter Ranch development will have views to the east of the Antelope Valley Landfill. There is a small ridge between Ritter Ranch and the landfill, however, residential development at the higher elevations in Planning Area 6 may be visually impacted by the landfill.

Other Annexation Areas

Potential future development of the "Other Annexation Areas" would have similar aesthetic impacts as Ritter Ranch although on a substantially reduced scale. The annexation area development areas would be visible from Elizabeth Lake Road.

Offsite Infrastructure Improvements

Amargosa Creek Improvement Project regional facilities will require significant grading along Amargosa Creek, including fills up to approximately 35 feet in depth (Elizabeth Lake Road will be up to 35 feet higher than present, and the total width of affected area for road/channel improvements and fill slopes will average between 120 and 280 feet). This is a significant unavoidable impact, although revegetation will reduce aesthetic impacts.

MITIGATION MEASURES

Also refer to Section IV.G, LAND USE for additional mitigation measures.

- *#56. During project construction, the applicant shall be required to provide appropriate screening (as with temporary fencing with opaque material), dust control (see Section IV.B, AIR RESOURCES), restricted construction hours, and a traffic control plan (Section IV.I, TRAFFIC AND CIRCULATION).
- *#57. All required landscaping will be installed, in accordance with City Standards in effect at the time of approval of the landscape plan, prior to issuance of occupancy permits for a particular area.
- #58. The applicant shall be required to submit a detailed Landscape Plan, to the satisfaction of the Director of Planning and the City Engineer. The Landscape Plan shall, at minimum, address special edge treatments for adjacent offsite areas (including Leona Valley), use of native vegetation, treatment of native vegetation in Specialty Parks, incorporation of natural channel areas within development areas and the golf course, and special screening techniques for aesthetically sensitive uses (including the amphitheater, Water Reclamation Plant, Equestrian Center, above-ground water storage tanks and commercial uses).

- #59. Landscaping will be consistent with the Specific Plan in order to maintain a cohesive theme across the project site, and in order to reduce aesthetic impacts of structures to adjacent roadways and residential properties.
- #60. Any lights used to illuminate the parking areas, driveways, and other exterior or interior areas, shall be designed and located so that direct lighting is confined to the property. The applicant shall submit photometric lighting plans for commercial, multi-family and recreational projects. In addition to directional lighting, lighting should not be of greater intensity (wattage) than otherwise necessary for public safety.
- *#61. Project design shall incorporate additional techniques to reduce light and glare, such as use of opaque glass instead of reflective glass, and earthtone building materials in high visibility areas.
- *#62. Flood control improvements shall utilize natural channels and/or be composed of natural materials with interspersed vegetation to maintain existing aesthetic qualities, where feasible, without jeopardizing the adequacy of flood control.
- *#63. Disturbed and unlandscaped areas shall be replanted with native vegetation compatible with the existing native vegetation, appropriate to the site, which will blend in with existing species.
- *#64. The project will follow the grading plan approved by the City and avoid disturbance of adjacent areas where possible.
- *#65. To the extent feasible, removal of existing native trees and vegetation shall be minimized during project construction and grading, particularly within existing natural channels (this can be accomplished by staking sensitive habitat at the limits of grading to avoid incidental disruption). The project grading plan shall clearly indicate permit limits and areas to remain.

UNAVOIDABLE SIGNIFICANT IMPACTS

The project design has substantially reduced aesthetic impacts through open space preservation. However, significant impacts will remain following mitigation, including loss of open space and vegetation, and viewshed impacts from adjacent and surrounding areas.

G. LAND USE

The following discussion is based on a site survey conducted by Robert Bein, William Frost Associates in July of 1990, in addition to the U.S.G.S. Topographic Map, aerial and ground photographs for the on-site and surrounding land uses, the City of Palmdale existing General Plan, the Draft Ritter Ranch Specific Plan and EIRs for surrounding projects in the Antelope Valley. This section examines existing conditions, potential impacts, and mitigation measures with regard to land use and project implementation.

EXISTING CONDITIONS

Refer to Section IV.F, AESTHETICS/LIGHT AND GLARE for additional discussion regarding existing uses.

Onsite Uses

The Ritter Ranch Specific Plan property encompasses approximately 10,625 acres of land in the foothill and valley areas west of Palmdale. The Ritter Ranch property is located in the unincorporated portion of Los Angeles County and ~~is proposed for annexation will be annexed~~ into the City of Palmdale. The property is located in the southwest corner of the Antelope Valley basin and is approximately four miles west of the State Route 14 Freeway. The property lies south of Ritter Ridge and Elizabeth Lake Road, west of 30th Street West, north of Sierra Highway, and east of Bouquet Canyon Road and the Angeles National Forest. The Ritter Ranch property is located within and adjacent to the Sierra Pelona Mountains which extend across Southern California in a southeast-northwest direction.

The primary existing land use for the Ritter Ranch property is extensive open space and limited cattle ranching. Cattle are currently grazing on the property under lease agreements (although this activity is currently being phased out). Most of the area is steep, mountainous terrain. The less steep valley floors are generally covered with introduced grasses. There is a ranch house, four storage sheds, a barn, two corrals three water tanks, and three windmills throughout the property which are not presently being used. All of these facilities will be removed upon development of the Ritter Ranch Specific Plan. Located in the higher elevations of the Ritter Ranch property are three prominent peaks, which include Hauser Mountain (and a microwave station at elevation of 5,200 feet, which is not part of the Ranch), Mount McDill at 5,187 feet (also with a microwave station), and Mount Odell at 5,217 feet. Two smaller microwave stations are located on either side of Mount McDill.

The microwave stations have easements and are fenced to restrict public access. There are also two major power transmission line corridors running mainly through the northeastern and central portion of Ritter Ranch Specific Plan area (under which the Southern California Edison Company has recorded easements that restrict land use and development). These power lines include two 220 kilovolt (Kv) lines in the central east-west corridor, and a 550 Kv, two 220 Kv lines and a 220 Kv "Sagebrush Powerline Easement" in the northwest-southeast corridor.

The topographic features of the Ritter Ranch Property range from steep mountain sides, to gradually sloped terrain, to flat valleys. Slopes range from 0% to 50% grade throughout the property. There are several established private jeep trails (graded, but unpaved) that transport vehicles throughout the entire property as well as foot trails and cow paths. Existing vegetation consists primarily of grassland (disturbed from historic grazing) low brush, Joshua Trees, Juniper Trees and sparse chaparral-community species.

The two major creeks that flow through the Ritter Ranch property are Amargosa Creek and Anaverde Creek. Amargosa Creek runs through the northerly portion of the Ritter Ranch property and flows easterly along Elizabeth Lake Road. Approximately 4,130 acres of Ritter Ranch is tributary to Amargosa Creek. Anaverde Creek flows in a west to east direction through the northern and eastern portions of Ritter Ranch, and approximately 4,060 acres of the ranch are tributary to this creek.

Existing zoning for the property is currently under Los Angeles County jurisdiction. The zoning category consists of A-2-2 which permits heavy agriculture with two acre minimum sized lots. A pre-zone application has been submitted to the City of Palmdale to establish zoning for the property with a Specific Plan designation which will create site specific zoning standards for the property ("Ritter Ranch Specific Plan - 0.68 du/ac"). Although the Ritter Ranch property is currently zoned for heavy agricultural use, the land does not fall under the Williamson Act regulations. According to the U.S. Department of Agriculture, the Williamson Act was never enacted in Los Angeles County. Therefore, no properties included under this Act are located in Los Angeles County. Messer Ranch contains the original Ritter Ranch complex. An extensive ~~almond~~ apple orchard, now in declining condition, also covers the site. The Lazy-T Ranch consists of a horse boarding facility with barns, corrals, stalls, an office and two residences. Hughes and Ritter property are presently vacant. One residence exists on the Nelson property.

Surrounding Uses

Land uses to the north of the project site include Ritter Ridge which is currently zoned rural (2-acre minimum size lots). The existing land use designation for this area is open space. Single-family residential is currently located just west of Planning Area 3, outside the northern boundary of the project site. Currently, there are two master planned community developments proposed in the area north of Ritter Ranch: Sante Fe Hills Specific Plan and Rancho Vista Specific Plan. The existing General Plan land use designation for these properties is Specific Plan Zone. Valley High Ranch is immediately west of the proposed equestrian area in Planning Area 1.

The rural town of Leona Valley is adjacent to the northwestern boundary of the Ritter Ranch property. Large lots of approximately two acres in size lie adjacent to the Ritter Ranch property on the northwest end and include single-family residential and equestrian uses. Also west of the project site is the Angeles National Forest. A Tentative Map is currently being processed in the County of Los Angeles for the proposed Leona Valley Estates project (formerly called Citi-Thrift), which is situated northwest of the Ritter Ranch property along Elizabeth Lake Road, and west of the property along Bouquet Canyon Road.

The area to the south of Ritter Ranch primarily consists of open space comprised of Letteau Canyon, Willow Springs Canyon, Hauser Canyon and Agua Dulce Canyon. Located beyond the far southwest corner of the Ritter Ranch property is the Lannon Ranch which includes a house, barn and stable. Also located outside the property's southwestern boundary is the Annan Ranch.

The Sierra Highway is located approximately 1-1/4 miles from the south central boundary of Ritter Ranch. The communities of Acton, Summit and Agua Dulce are located along this highway.

The area immediately east of the Ritter Ranch property is comprised of the City Ranch Specific Plan Area. This property has an existing General Plan Land Use designation of Specific Plan Zone. The existing zoning is under Los Angeles County's jurisdiction and is A-2-2 (heavy agriculture, 2 acre minimum lot size). Further east west of the property, beyond City Ranch, General Plan Land Use designations include urban residential (3.1-6.1 du/ac), suburban residential (1.1-2.0 du/ac), non-urban (1 du/10 ac) and open space. There are also existing General Plan Land Use designations in this area for regional commercial and community commercial. The Antelope Valley Freeway is located approximately three

miles east west of the site. The California Aqueduct is also located in the area east west of Ritter Ranch.

The primary access to the Ritter Ranch property is provided by Elizabeth Lake Road which intersects with the Antelope Valley - State Route 14 Freeway. Elizabeth Lake Road, which runs in a northwest-southeast direction adjacent to Ritter Ranch, is classified as a medium-duty road and will be improved to accommodate the increased traffic that is expected with the development of Ritter Ranch. Bouquet Canyon Road, which connects with Elizabeth Lake Road, runs adjacent to the Ritter Ranch property along a portion of the northwestern boundary of Planning Area 1.

IMPACTS

Onsite Uses

During construction and possibly beyond, the project could result in a significant increase in wind and water erosion/siltation on the property. Both the Amargosa and Anaverde Creeks flow through the Ritter Ranch property and will be affected by the development of the Ranch. The property is located in an area of flood hazard and could increase the flood hazard on- and off-site (see Section IV.C, WATER RESOURCES). Also, dust generation due to typical construction and grading activities can be anticipated to temporarily increase local airborne particulate matter. In addition, necessary grading activities would also temporarily increase local noise levels and create impacts to aesthetic views of the site. These temporary significant impacts will be substantially reduced but not eliminated with implementation of required mitigation measures (addressed in sections IV.B, AIR RESOURCES, IV.E, NOISE, and IV.F, AESTHETICS/LIGHT AND GLARE).

The Ritter Ranch property has been divided into eight Planning Areas. Within each Planning Area are individual Planning Units which define where particular land uses and densities are designated. Refer to Section III, PROJECT DESCRIPTION, for a description of each Planning Area. The Ritter Ranch project could introduce approximately 20,000 new residents into this rural area. As a consequence, traffic into and out of the project area is expected to significantly increase. In addition, project residents will increase the demand on existing public services and utilities. These concerns are addressed in Section IV.I, TRAFFIC AND CIRCULATION, and in Section IV.K, PUBLIC SERVICES AND UTILITIES and Section V.C, GROWTH-INDUCING IMPACTS.

Currently, the approximately 10,625 acres of the Ritter Ranch Specific Plan area is open space with limited agricultural uses. The development of the Ritter Ranch Specific Plan will include approximately 2,377 acres of residential development, 73 acres of commercial development, and the balance will be occupied by schools, roadways, easements, and open space. Although land that is currently open space will be developed, more than 70% of the project area, approximately 7,601 acres, will be provided as open space for public use in the form of natural open space, parks, and multi-purpose trails, as well as additional acreage of improved open space for the proposed golf course. The open space area includes approximately 352 acres of Specialty Parks (designed to retain sensitive and/or unique site features), as well as Fuel Modification Zones and public facilities (such as the Water Reclamation Plant). The Juniper Park (Planning Unit 4H) includes a Visitor Information Center and picnic areas. Also refer to Section IV.A, EARTH RESOURCES and IV.F, AESTHETICS/LIGHT AND GLARE for additional impacts and mitigation measures.

The Specific Plan proposes to allow "cross-lot" drainage within the Planning Area 1B estate lots. This is not considered a significant impact to project residents as it will allow reduced grading for onsite improvements (no significant flood hazard is expected, as major storm flows will be handled by improved channels and flood control facilities).

As the Ritter Ranch property becomes developed, there will be an incremental loss of agricultural land. Commercial and residential uses will be implemented on the property and zoning will be changed according to the Ritter Ranch Specific Plan. This loss of agricultural area will not be significant, in consideration of the substantial remaining areas in Leona Valley designated for heavy agriculture.

The current Los Angeles County zoning category for the Ritter Ranch property consists of A-2-2, which permits heavy agriculture with two acre minimum sized lots. The Ritter Ranch property is proposed to be annexed into the City of Palmdale, and developed consistent with the Land Use Policies and Development Standards contained in the Ritter Ranch Specific Plan (requiring a General Plan Amendment, Pre-Zone, Annexation and Sphere of Influence amendment consistent with the existing General Plan). The Pre-Zone Application was submitted for "Ritter Ranch Specific Plan - 0.68 du/acre". Although Specific Plan design has substantially reduced land use impacts and has retained key rural features of the site, conversion of the proposed development area from rural open space to residential and commercial/recreation uses is considered a significant unavoidable impact.

Section 5 of the Ritter Ranch Specific Plan describes how the Specific Plan conforms to the existing City of Palmdale General Plan on a policy-by-policy basis. In this Specific Plan section, each applicable General Plan is presented along with a statement of how the Specific Plan conforms to that policy. Through this analysis, the Specific Plan concludes that it is in conformance with the City's existing General Plan.

Other Annexation Areas

Annexation of the other properties will require a Pre-Zone to add the new zoning of the property to the City of Palmdale Zoning Ordinance (in addition to a General Plan Amendment, Annexation, and Sphere of Influence amendment). The proposed zoning allows one dwelling unit per acre, which is twice the residential development of the current two acre minimum lot County zoning. This increased density is not considered a significant land use impact to offsite areas, as onsite land use will remain compatible with surrounding uses (although future development could be a significant land use impact onsite due to conversion of aesthetically and biologically valuable open space). Future development applications in this area will require separate environmental review. Major issues of future development will include restricted development on the ridgelines, in fault hazard areas, on unstable slopes, and within sensitive Joshua/Juniper Woodlands or riparian areas. Impacts resulting from future development are anticipated to be mitigated through the environmental review process.

Surrounding Uses

Short-term construction impacts would affect adjacent and surrounding land uses, including residential areas in the community of Leona Valley which lies adjacent to the northwest corner of the Ritter Ranch property. Noise, dust, and traffic associated with construction activities would cause temporary impacts to nearby residents and businesses. With required mitigation measures, these temporary impacts are not expected to be significant.

Surrounding land use impacts are expected to result from land use intensification due to the change in existing uses and increased urbanization. The transformation of land uses onsite may result in aesthetic impacts to adjacent residences in Leona Valley since development of Ritter Ranch will involve substantial land use alterations (see Section IV.F, AESTHETICS/LIGHT AND GLARE). Special care must be taken to buffer adjacent residential land uses, specifically the Leona Valley area west of Planning Area 1 and the Lazy-T Ranch north of Planning Unit 4H. Impacts to Leona Valley will be substantially

reduced through designation of adjacent Ritter Ranch areas as estate residential (two-acre minimum lots and rural street standards, consistent with existing Los Angeles County zoning of A-2-2) and open space in Leona Valley. Ritter Ranch impacts to Lazy-T Ranch will be substantially reduced by designating Planning Unit 4H as Open Space. The Water Reclamation Plant proposed in Planning Unit 4H may be visible from Lazy-T Ranch and portions of Elizabeth Lake Road, requiring detailed site specific analysis once plans are submitted. Similarly, the amphitheater proposed in Planning Unit 4I, although partially screened by a low ridge, will occasionally introduce noise into the Lazy-T Ranch area, which may be a periodic significant effect. The commercial center in Planning Unit 5A₁ and 5A₂ (east of Lazy-T Ranch) may include a local market, which is not considered a significant land use conflict with the nearby Lazy-T (development of the site is constrained by fault hazards). A Conditional Use Permit will be required for the Water Reclamation Plant, amphitheater, golf course and multi-family uses.

The Ritter Ranch Specific Plan is proposing to create an 18-hole golf course and Equestrian Center on the property within Planning Area 1, which will be located at the northwest portion along Elizabeth Lake Road and adjacent to Leona Valley. These uses will be visible from surrounding areas and will attract visitors to Ritter Ranch. This is not considered a significant land use impact, as the uses are recreational/rural in nature and will be adjacent to an existing equestrian center. Also, the golf course and surrounding areas will be properly landscaped to be consistent with the area's land use characteristics (and will include the Wetlands Park within a portion of a proposed regional flood control basin).

Development of the Ritter Ranch Specific Plan area will result in increased traffic and related noise and air quality impacts in the surrounding areas of the site. This impact will be substantially reduced after mitigation as transportation improvements and energy conservation measures will be implemented (see Section IV.I, TRAFFIC AND CIRCULATION, Section IV.E, NOISE and Section IV.B, AIR RESOURCES).

Other Annexation Areas

Annexation of the other properties does not pose any significant adverse impacts to the surrounding land uses as the proposed residential zoning is compatible with surrounding open space and residential land uses. Future development applications will require separate environmental review.

Offsite Infrastructure Improvements

The Amargosa Creek Improvement Project facilities would result in significant long-term impacts due to substantial physical changes resulting from grading associated with modifying the 5.9 mile long section adjacent to Ritter Ranch. These impacts are discussed more fully in the Amargosa Creek Improvement Project EIR which also provides mitigation to lessen these impacts.

MITIGATION MEASURES

Measures to mitigate traffic, noise, aesthetic, and air quality impacts associated with implementation of the proposed Ritter Ranch Specific Plan are addressed in their respective sections of this Environmental Impact Report.

- #66. The Applicant shall annually evaluate all design guidelines, development standards and mitigation measures for the Ritter Ranch Specific Plan, submitting a Monitoring Report to the Director of Planning the first quarter of each year through buildout of the project. In addition, the applicant shall submit aerial photos of the project site taken on a monthly basis when grading is occurring. The monitoring report shall include aerial photos of the project site taken on a monthly basis during project construction. Monitoring and verification of compliance with adopted applicable Specific Plan development standards shall also be performed prior to subsequent approvals, to determine if the proposed measures are achieving their intended purpose. To the extent allowed by law, future discretionary approvals may include additional conditions of approval based upon City staff review of the Annual Monitoring Report. Nothing in this mitigation measure shall be construed to permit environmental review beyond the extent permitted by State law.

UNAVOIDABLE SIGNIFICANT IMPACTS

Temporary construction impacts, due to the magnitude of grading operations, may be significant with implementation of available mitigation measures. Implementation of the proposed Ritter Ranch Specific Plan will result in loss of existing open space areas and significant alteration of the natural terrain, and may significantly impact the Lazy-T Ranch.

H. PUBLIC HEALTH AND SAFETY

Information in this section is based upon a report prepared by Schaefer Dixon Associates titled Summary Report -- Preliminary Site Evaluation, Review of Consultant's Environmental Assessment Report, [11,500-Acre] Ritter Ranch Parcel, Palmdale, California, May 25, 1990 (the southern project boundary was shifted north after completion of this report). ~~The report is contained in Appendix G of this EIR.~~ The purpose of the report was to evaluate the potential for hazardous materials in the project property based upon discernable and/or documented present and historic uses of the property, and to generally characterize the expected nature of hazardous materials that may be present as a result of such use. In order to accomplish the objectives stated above for the 10,625 acre Ritter Ranch parcel, the following tasks were performed: review of portions of the Ritter Ranch Specific Plan and various consultant reports; a site reconnaissance to verify the findings in a report prepared by Leighton and Associates entitled, "Historical Review and Site Reconnaissance to Assess the Potential for Onsite Hazardous Materials/Waste Contamination on the [11,500-Acre] Ritter Ranch Site, Palmdale Area, Los Angeles County, California" dated December 14, 1989; and presentation of this summary report with conclusions and recommendations for further site investigations. No subsurface field exploration or laboratory testing was performed in conjunction with this assessment.

An additional report utilized in this section was prepared by Ultrasystems Environmental Services. The report titled Analysis of Potential Adverse Health Risk Impacts Resulting From Proximity of Future Residents to Electrical Power Lines, December, 1989, assesses the potential health risks of two sets of overhead electrical power lines traversing the Ritter Ranch property (the report is ~~available for review at the City of Palmdale Planning Department contained in Appendix G of this EIR~~).

EXISTING CONDITIONS

General Geology and Groundwater

The geology of the 10,625-acre Ritter Ranch site consists primarily of consolidated bedrock composed of Pre-Cambrian schist, granitics, and sedimentary rock overlain in places by alluvium and stream channel deposits. The northern portion of the proposed project area is traversed by the active San Andreas fault zone. Groundwater is derived from both confined and unconfined aquifers from near ground surface to 600 feet below existing ground surface. In addition, several springs and seeps occur within the property.

The geology of the Other Annexation Areas is similar to that described for Ritter Ranch. In general, the site geology predominantly consists of schist bedrock overlain and in fault contact with sedimentary rock, slope wash, alluvium, and recent stream channel deposits. The active San Andreas fault traverses the annexation area and is included in the Alquist-Priolo Special Studies Zone for fault rupture hazards.

Based on documented literature and interviews with local residents, both perched or static groundwater occurs within Amargosa Creek in the southern project area. Groundwater varies in depth from approximately 6 to 20 feet below existing ground surface and flows in a southeasterly direction. Groundwater occurrence in the central and northern project area is undocumented at present due to the absence of producing wells.

Historic Land Uses

Historical uses for the Ritter Ranch project area include ranching, dry land farming, cattle grazing, small scale mining operations, a hunting club, beekeeping, and a turkey ranch (the cafe and gas station referenced in Appendix G are south of the project site). The hunting club was used for skeet shooting and a rifle and gun target practice area. Another target practice area was located in Anaverde Creek. Both sites were used by the hunting club during the early 1960's to 1974.

The primary use of the adjacent Other Annexation Areas has been for ranches, or small acreage agriculture, such as dry land farming and fruit orchards.

Power Transmission Lines

Ritter Ranch is traversed by major electrical power transmission lines. The set diagonally crossing the Ritter Ranch is comprised of four lines occupying an approximately 200-foot wide right-of-way and includes Midway-Vincent No. 3, a 500 Kv line, as well as Antelope-Vincent and Antelope-Mesa, two 220 Kv lines. In addition, the 220 Kv line ("Sagebrush Power-Line") parallels the three other lines southeasterly to Anaverde Creek then diverges south and then east around the City Ranch, rejoining the three other lines approximately 1-1/4 miles southeast of Anaverde Creek. The second set crosses the center of the Ritter Ranch property roughly horizontally (west to east), and includes two 500 Kv lines, Midway Vincent Nos. 1 and 2, within an approximately 300-foot wide right-of-way.

Offsite Location of Hazardous Materials

Review of 11 publications that document EPA contaminated sites indicated one landfill site within a 5-mile radius of the Ritter Ranch project area, 10 hazardous waste generators within a 1-mile radius, and 28 hazardous waste generators and disposal data sites within a 1-mile radius of Ritter Ranch. There were no sites that have contaminated the soil or groundwater within a 1-mile radius of the Ritter Ranch project area. The types of materials associated with the identified hazardous waste generators include petroleum, hydrocarbons, pesticides, herbicides, PCB's, lead or other priority metals, and chlorinated solvents.

IMPACTS

Power Transmission Lines

The possibility of adverse health effects resulting from residential exposures to extremely low frequency (ELF) electromagnetic fields associated with overhead power lines may exist, but has not been proven due to a lack of conclusive evidence. Many of the studies performed to date which have exposed organisms ranging from individual cells to humans to ELF fields have suffered from scientific deficiencies such as poor study design and small sample sizes which have cast doubt on their results. Although a causal link between exposure to ELF fields and increased incidence of adverse health effects cannot be ruled out, there is currently insufficient evidence to indicate that a relationship exists. However, entities such as the California Public Utilities Commission (PUC) have established guidelines regarding overhead power line heights and distances from structures in order to mitigate possible adverse health effects (the project conforms to the guidelines).

The power lines crossing the property are surrounded by 200 to 300-foot right-of-ways. Based on the California Public Utilities Commission guidelines and the epidemiological studies which have examined exposures to 60 Hertz power lines located 0.5 meters to 100 meters (1.6 feet to 328 feet) from residences, but which found no statistically significant relationships between adverse health effects and exposure to ELF fields, the right-of-ways surrounding the power transmission lines which traverse the Ritter Ranch property appear to be sufficient to protect residents of units located on either side of the right-of-ways from possible public health and safety hazards that could result from exposure to them. In addition, residential lots adjacent to the right-of-ways would include backyards as additional buffers between the dwelling units and the power lines. Based on the fact that field strength

decreases with distance from the source and that structures such as houses shield people inside from approximately 90 percent of the field strength at that point, exposures received by dwelling unit inhabitants are expected to be very slight. However, one community park (planning unit 5T) and one neighborhood park (PU 5F) encroach into the powerline easement. One additional neighborhood park (PU 5H) is adjacent to the easement. It is anticipated that the EMF exposure of users of the parks would be short in duration and intermittent in nature.

While it is not expected that exposure to ELF fields will result in health effects, there is the potential for unavoidable adverse effects, there is the potential for unavoidable adverse impacts if, in the future, conclusive evidence links ELF fields emanating from power transmission lines to deleterious health effects.

Hazardous Materials

Based upon evaluation of the referenced report documenting land use between 1923 and the present, site reconnaissance of the approximately 10,625 acre Ritter Ranch parcel, and interviews with previous and existing occupants of the property, there is a potential for the presence of hazardous materials at several locations within the site. The hunting club that operated a skeet shooting area and rifle and gun target practice area at two separate sites within the property may both contain lead contamination which may require removal as directed by regulatory agencies. In addition, the Leighton and Associates report indicates that there are several areas of concern in regards to potential sources of on-site contamination. These include abandoned tanks; 55-gallon drums and refuse associated with the former turkey ranch area; buried, partially buried, and aboveground buried refuse in the eastern project area and in the vicinity of the old Ritter Residence; surficial debris, and a locked trailer marked "Lockheed Emergency Vehicle" in the eastern portion of the project area; and the potential for asbestos fibers within the existing residences and structures within the site. Site reconnaissance verified that there is approximately 75 to 150 cubic yards of construction debris and household type trash, furniture, and appliances located in stream channels (with possible high water tables) at various locations throughout the property. There is a potential for the presence of hazardous materials from the refuse located within these stream channels in the eastern and northwestern portion of the site.

To mitigate any impacts associated with the potential presence of hazardous materials on the site as well as possible soil contamination, surface and subsurface testing programs will be required to evaluate petroleum hydrocarbons and lead contaminants that may be

associated with the historic use of the property. In addition, the collection of near-surface soil samples and analysis of those samples will be required to identify chemicals or contaminants in those areas where trash and debris have been dumped and to evaluate landfill class designations for the debris. If these investigations conclude that the site contains hazardous materials or soil contamination, a licensed hazardous waste contractor will be retained by the developer to properly dispose of the materials and implement clean-up of the site. Clean-up and disposal procedures will comply with all applicable federal, state and local regulations regarding the handling, transport and disposal of hazardous materials.

The required testing will identify any hazardous materials onsite which may expose future residents and visitors to the property to health and safety hazards. Any hazardous materials discovered will be removed or otherwise mitigated to ensure public safety. Implementation of the Ritter Ranch Specific Plan will create residential and recreational land uses which do not have the potential to generate significant public health and safety impacts. However, the Specific Plan allows development of commercial uses. Certain commercial uses, such as dry cleaners and medical offices, may use, store and/or transport hazardous materials on their properties. Such activities could present a risk of contamination on the property if not monitored properly. However, compliance with local, state and federal regulations regarding hazardous materials is expected to reduce this risk to a less than significant level. Therefore, the Ritter Ranch Specific Plan is not anticipated to result in significant public health and safety impacts.

Offsite Infrastructure Improvements

Amargosa Creek Improvement Project facilities are intended to reduce existing significant flood hazards, and are not expected to result in any significant public health and safety impacts (although there exists an unavoidable risk of sewer line rupture in the event of a major earthquake along the Leona Valley/Palmdale portion of the San Andreas Fault).

MITIGATION MEASURES

- #67. In the areas where trash and debris have been dumped into stream channels within the property, near-surface soil samples and analysis of those samples (Priority Pollutants Scan) for the identification of chemicals or contaminants shall be collected prior to removal operations to evaluate landfill class designations for the debris.

- #68. Prior to issuance of grading permits for the areas described below, further investigations, possibly to include sampling and testing, shall be conducted for each area to ascertain the types and amounts of potential hazardous materials associated with the following: the former turkey ranch area; partially and completely buried refuse; the Hunt Club area; surficial debris and a locked trailer marked "Lockheed Emergency Vehicle"; and existing structures with the potential of containing asbestos fibers.
- *#69. If subsequent investigations of the site determine the presence of hazardous materials, the developer shall retain a licensed hazardous materials contractor to conduct clean-up of the site using proper disposal procedures. Clean-up and disposal of the site shall comply with all local, state and federal regulations regarding handling, transport and disposal of hazardous materials.
- #70. Although the right-of-ways surrounding the power transmission lines traversing the project site properties appear to be sufficient to protect residents, the following guidelines, including the City of Palmdale undergrounding ordinance, shall be incorporated into the project plans and are subject to approval by the City Engineer and Planning Director:

**Basic Minimum Allowable Clearances of Wires
Above Thoroughfares and Ground-Clearances From
Poles, Buildings, Structures, or Other Objects**

<u>Nature of Clearance</u>	<u>Distance by Voltage</u>	
	<u>22.5-300 kV</u>	<u>300-550 kV</u>
Crossing or along thoroughfares in urban districts or crossing thoroughfares in rural districts	30 feet	30 feet*
Above ground in areas accessible to pedestrians only	25 feet	25 feet*
Horizontal clearance of conductor from buildings	6 feet	15 feet

* Shall be increased by 0.025 feet per kV in excess of 300 kV.

Source: Rule 37, General Order No 95, Rules for Overhead Electric Line Construction, Public Utilities Commission of the State of California, March 1981. PUC staff (Mr. Pat Stone) has indicated there are not separate ELF guidelines for school facilities.

- #71. All project homeowners and tenants shall be advised of potential health risks associated with power transmission lines prior to close of escrow/execution of rental lease. The content and form of said notification shall be indicated in the applicable escrow, deed and/or lease documents in a format acceptable to the City attorney.

UNAVOIDABLE SIGNIFICANT IMPACTS

Potentially unavoidable adverse impacts could occur following implementation of the required mitigation measures if in the future conclusive evidence links the ELF field associated with the power transmission lines to deleterious health affects.

I. TRAFFIC AND CIRCULATION

This section is based on the Traffic Study prepared for the Ritter Ranch development by DKS Associates in June 1990 (refer to Appendix H of this EIR), as well as a July, 1990 DKS study entitled "Circulation and Transportation Needs Study for the Palmdale Southwest Planning Area" (available for review at the City of Palmdale Planning Department). The following data presents a description of the existing transportation conditions in the general project area, evaluates the circulation conditions in the year 2010, identifies the specific impacts of the projects, and proposes mitigation measures for these impacts. Finally, this section identifies the additional circulation system needs of the study area with the assumed ultimate build-out of the southwestern Palmdale area, which generally includes the area south of Avenue P and west of the Antelope Valley Freeway.

The City of Palmdale's travel demand model, developed by DKS Associates, which evaluates the impacts of various land use scenarios and assumed circulation system alternatives, was utilized as the analytical framework for the DKS study. Some of the data and results of the travel demand model runs and analysis were developed as a part of a subregional study entitled Palmdale Southwest Planning Area Study conducted for the City of Palmdale by DKS Associates. In response to a large number of planned developments in the southwestern areas within Palmdale's sphere of influence, one of which is the Ritter Ranch project, the subregional study identified the anticipated overall level of development and the associated future circulation needs of this rapidly growing area near Palmdale.

EXISTING CONDITIONS

Existing Levels of Development

Currently, the general study area has relatively very little development, consisting primarily of single-family homes situated on large lots. This fact is the primary reason for the currently light traffic volumes in this area of the City. Through traffic between Santa Clarita and the Antelope Valley (using Bouquet Canyon Road and Elizabeth Lake Road) contribute significantly to existing traffic levels in the project area.

Table 15, EXISTING LAND USE, lists the amount and type of the land uses that currently exist within the southwestern Palmdale study area, which generally includes the area south of Avenue P and west of the Antelope Valley Freeway. As indicated in this table, the entire area currently has less than 1,000 dwelling units, of which approximately 800 are located

Table 15

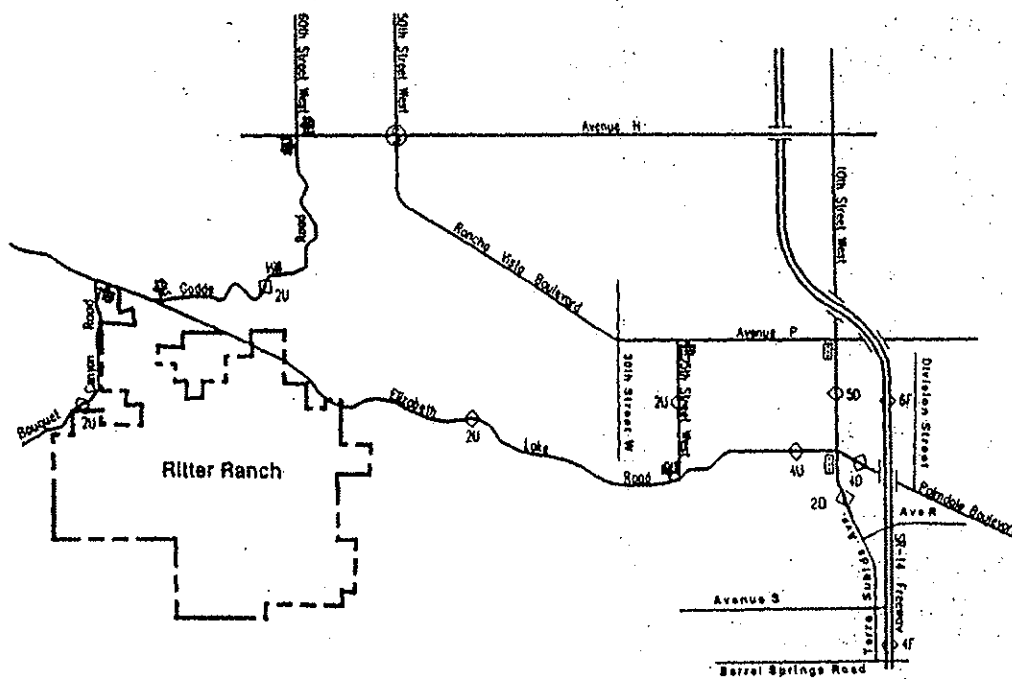
EXISTING LAND USE

<u>Area</u>	<u>Single-Family (Units)</u>	<u>Multi-Family (Units)</u>	<u>Industrial (Acres)</u>
North of Elizabeth Lake Road	802	0	0
South of Elizabeth Lake Road	191	0	1.6
	—	—	—
Total	993	0	1.6

Surrounding Circulation System

Since the project is outside the southwestern edge of the developed area in the Antelope Valley, there is no developed arterial roadway system through the general area. Several facilities, however, skirt, and/or pass through, the outer boundaries of the project site. Exhibit 17, EXISTING CIRCULATION SYSTEM, indicates the extent of the existing circulation network in the area. A description of the characteristics of the adjacent arterial system is presented in the following paragraphs:

- Elizabeth Lake Road is a continuous regionally significant thoroughfare in the Antelope Valley. Classified as a major arterial in the City of Palmdale's Circulation Element, it extends from the Golden State Freeway (I-5) near the Ventura County border to the City of Palmdale, where its name changes to Palmdale Boulevard. Running through the heart of Palmdale, it extends east to the San Bernardino County border where it intersects Avenue P which continues through San Bernardino County on to Victorville. Palmdale Boulevard has a full (partial cloverleaf) interchange with the Antelope Valley Freeway (SR-14), providing a regional connection to Kern and Los Angeles Counties. This arterial has a total of two through lanes (one in each direction) west on Foxholm Drive near the city line, four lanes between Foxholm north of Elizabeth Lake Road and approximately 200 are located south of Elizabeth Lake Road along the foothills. Drive and 47th Street East, and two lanes east of 47th



Ritter Ranch Specific Plan

Street East. Palmdale Boulevard has a raised, landscaped median island between 10th Street West and 11th Street East.

Avenue R is classified as a major arterial and extends from Tierra Subida Avenue, about three miles east of the project, to about 3,000 feet east of 47th Street East. It has two through lanes west of 6th Street East, four lanes between 6th Street East and 20th Street East, two lanes eastbound and one lane westbound between 20th Street East and 22nd Street East, four lanes between 22nd Street East and 30th Street East and two lanes east of 30th Street East. The arterial crosses under, but does not have an interchange with, the Antelope Valley Freeway.

Avenue S which begins just over a mile east of the eastern boundary of the project at 20th Street West, extends to about 3,800 feet east of 47th Street East. It is designated a major east-west arterial, and currently has two lanes over its entire length except between Sierra Highway and 15th Street East, and between 25th Street East and 35th Street East, where it has two lanes eastbound and one lane westbound. The arterial has a full-diamond interchange with the Antelope Valley Freeway, providing regional connections to the north and south.

25th Street West runs north-south and has two discontinuous segments: from north of Avenue K to Avenue L in Lancaster, and from Avenue P to Elizabeth Lake Road. Both segments have two through lanes. It is a major arterial south of Avenue P-8, and a minor arterial north of Avenue P-8.

10th Street West/Tierra Subida Avenue is the main continuous north-south arterial in the vicinity of the project. 10th Street West extends south from Avenue G in Lancaster, has an Interchange with the Antelope Valley Freeway near Avenue P, then changes its name to Tierra Subida at Palmdale Boulevard/Elizabeth Road and continues south to Barrel Springs Road. It is classified as a major arterial north of Avenue S, and as a minor arterial to the south. It has two lanes over most of its length, except for a half-mile segment south of Elizabeth Lake Road, which has two lanes southbound and one lane northbound. This street has recently been widened to a 5- and 6-lane divided arterial between Avenue P-8 and Palmdale Boulevard.

Godde Hill Road is an extension of 60th Street West, which extends from north of Avenue A, outside the City boundary, to Avenue N where it becomes Godde Hill

Road. It has a total of two through lanes. It is classified as a future 4 lane undivided road.

Bouquet Canyon Road is a two-lane road which extends southwesterly from Elizabeth Lake Road along the alignment of 80th Street West, winding through the canyons west of the property to the Santa Clarita Valley. It is classified as a minor arterial.

Barrel Springs Road, a two-lane minor arterial, has two unconnected segments: from Tierra Subida Avenue to Sierra Highway, and from west of Pearblossom Highway to Cheseboro Road.

The SR-14 Freeway is the major transportation facility in the Antelope Valley. It provides access to Lancaster to the north and to Los Angeles to the south. North of Palmdale Boulevard, SR-14 has 6 lanes. It is a 4 lane facility south of Palmdale Boulevard.

Daily Traffic Volumes

As mentioned earlier, since the project area is relatively undeveloped, existing traffic volumes in the immediate area of the project sites are fairly light. Table 16, EXISTING DAILY VOLUMES AND LEVELS OF SERVICE, contains a complete capacity analysis for all of the major and minor arterials in the general vicinity of the project. This table identifies the existing ADT, the volume to capacity ratio and the level of service for each arterial and its various distinct segments,

Existing Capacities and Levels of Service

- *Descriptions of Assumed Roadway Capacities*

The capacity of a roadway is affected by a number of factors, including the width of the roadway, the number of crossing arterials and collectors, the amount of green time given to the street at each signal, the presence or absence of on-street parking, the number of turning lanes at each intersection, and the number of driveways.

Daily traffic capacity standards for arterials as defined by the City of Palmdale Draft Circulation Element are reflected in Table 17, DAILY CAPACITIES FOR PALMDALE

Table 16

EXISTING DAILY VOLUMES AND LEVELS OF SERVICE

ROADWAY	ADT	V/C	LOS
Elizabeth Lake Road			
• West of Bouquet Canyon Road*	3,600	0.24	A
• Bouquet Canyon Road/Godde Hill Road	3,100	0.45	A
• Godde Hill Road/Foxholm Drive	2,900	0.16	A
• Foxholm Drive/Palmdale Boulevard	11,500	0.22	A
Palmdale Boulevard			
• Elizabeth Lake Road/Antelope Valley Freeway	15,200	0.29	A
• East of Antelope Valley Freeway	27,200	0.96	E*
Avenue R (Tierra Subida Avenue/Division Street)	5,600	0.11	A
Avenue S			
• City Ranch Bypass/Tierra Subida Avenue	4,000	0.27	A
• Tierra Subida Avenue/Antelope Valley Freeway	4,900	0.27	A
• East of Antelope Valley Freeway	13,700	0.72	C
Barrel Springs Road (Tierra Subida Avenue/Sierra Highway)*	1,000	0.08	A
Bouquet Canyon Road (South of Elizabeth Lake Road)*	1,800	0.15	A
Godde Hill Road (60th Street West/Elizabeth Lake Road)*	3,000	0.20	A
25th Street West			
• Avenue P/Avenue P-8	3,200	0.08	A
• Avenue P-8/Elizabeth Lake Road	3,200	0.07	A
10th Street West (Avenue P/Palmdale Boulevard)	11,600	0.87	D*
Tierra Subida Avenue			
• Palmdale Boulevard/South of Palmdale Boulevard	5,500	0.22	A
• South of Palmdale Boulevard/Avenue R	5,500	0.33	A
• Avenue R/Avenue S	4,900	0.13	A
• Avenue S/Barrel Springs Road*	1,200	0.10	A

* Exceeds Acceptable Level of Service Value

ADT= Average Daily Trips
V/C= Volume to Capacity Ratio
LOS= Level of Service

Source: City of Palmdale 1990 Traffic Flow Map.

* Source: DKS Associates: Circulation and Transportation Needs Study for the Palmdale Southwest Planning Area, July 1990.

MAJOR AND MINOR ARTERIALS. Field observations have indicated that Palmdale Boulevard is capable of accommodating volumes considerably higher than what might be expected from its cross-sectional width. Therefore, capacities on this street have been adjusted to reflect observed traffic operation. An urban major arterial, as stated in Table 17, DAILY CAPACITIES FOR PALMDALE MAJOR AND MINOR ARTERIALS, provides higher capacity than a normal major arterial does. The higher capacity accounts for higher geometric standards, fewer access points to abutting properties, greater running speed as a result of signal coordination, a raised median island, and wider travel lanes. The table shows daily capacities for operating Level of Service E, which is considered to be the ultimate street Level of Service (LOS) cap by the City. It is City of Palmdale policy that, for daily traffic analysis, Level of Service C is the basis for identifying whether a capacity problem exists at a midblock location. For the purposes of this evaluation, the maximum volume for LOS C is defined as 80 percent of the capacity of LOS E. A complete definition of levels of service, as they relate to various ranges of volume-to-capacity ratios, is provided in Table 18, LEVEL OF SERVICE DESCRIPTION.

- *Arterial Operations*

As noted in Table 16, EXISTING DAILY VOLUMES AND LEVELS OF SERVICE, the arterial network in the general area of the project currently operates at acceptable levels of service, i.e., at or better than Level of Service C, except a portion of Palmdale Boulevard east of the Antelope Valley Freeway, and 10th Street West between Avenue P and Palmdale Boulevard. Due to relatively light daily traffic volumes, a majority of the roadway segments currently operate at Level of Service A, with ample reserve capacity.

Avenue S, east of the Antelope Valley Freeway is the only segment operating at LOS C. Tenth Street West, north of Palmdale Boulevard, operates at Level of Service D. Only the segment of Palmdale Boulevard, east of the Antelope Valley Freeway currently operates at LOS E, indicating significant levels of congestion for motorists. This section of Palmdale Boulevard has four through lanes with a paved median island on an 84-foot cross section. By eliminating on-street parking, this section can be restriped to six through lanes and a median, which would accommodate the traffic and provide a higher level of service.

- *Existing Intersection Capacity Utilization*

The technique used to assess intersection operation is Intersection Capacity Utilization (ICU). To calculate an ICU the volume of traffic using the intersection is compared with

Table 17

**DAILY CAPACITIES FOR PALMDALE
MAJOR AND MINOR ARTERIALS**

<u>Facility Geometrics</u>	<u>Level of Capacities</u>
8-lane Divided Major Arterial	72,000
6-lane Divided Urban major Arterial	60,000
6-lane Divided Major Arterial	54,000
4-lane Divided Urban Major Arterial	40,000
4-lane Divided Major Arterial	36,000
2-lane Divided Major Arterial	18,000
4-lane Divided Major Arterial	30,000
2-lane Undivided Major Arterial	15,000
4-lane Divided Minor Arterial	28,000
2-lane Divided Minor Arterial	14,000
4-lane Undivided Minor Arterial	24,000
2-lane Undivided Minor Arterial	12,000

* Source: Draft Traffic Impact Study for Ritter Ranch Specific Plan, DKS Associates, June 1990, Table 2-2.

Table 18

LEVEL OF SERVICE DESCRIPTION

<u>Level of Service</u>	<u>Description</u>	<u>Volume to Capacity Ratio</u>
A	Level of Service A occurs when progression is extremely favorable and vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0.60 and below
B	Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	0.61 to 0.70
C	Level of Service C generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	0.71 to 0.80
D	Level of Service D generally result in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	0.81 to .90
E	Level of Service E is considered to be the limit of acceptable delay. Thee high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences.	0.91 to 1.00
F	Level of Service F is considered to be unacceptable to most drivers. This condition often occurs with oversaturated, i.e., when arrival flow rates exceed the capacity at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	1.01 and up

Source: "Highway Capacity Manual" Special Report 209, Transportation Research Board, National Research Council, Washington, D.C., 1985, Pages 9-4 to 9-5.

the capacity of the intersection. ICU is usually expressed as a percent which represents that portion of the hour required to provide sufficient capacity to accommodate intersection traffic if all approaches operate at capacity. The ICU's listed in Table 19, EXISTING INTERSECTION CAPACITY UTILIZATION AND LANE GEOMETRICS show that intersections in the vicinity of the site are operating at Level of Service A during the peak hours. An explanation of ICU and Level of Service is included in Appendix H, TRAFFIC ANALYSIS.

Public Transit Services

Bus transit in the project area is provided by the Antelope Valley Bus Lines, and service parameters such as routes, schedules and hours of operation are determined by the County of Los Angeles through its Department of Public Works.

Antelope Valley Bus Service operates two fixed-route lines within the City, Route 2 and 3. Route 2 operates between Lancaster and Palmdale, and Route 3 operates between Palmdale and Littlerock. These lines run Monday through Friday, generally on two-hour headways. Depending on the route and location, service starts at 6:34 AM and ends at 6:22 PM.

The existing transit operation closest to the project area is service on Route 2 along 10th Street West and Palmdale Boulevard.

Bicycle Facilities

Currently there are no striped bicycle lanes in the vicinity of the project.

Truck Routes

The following arterial segments in the vicinity of the project are designated as truck traffic routes:

- 10th Street West from Avenue P to Avenue M
- Sierra Highway from SR-14 to Avenue M
- Avenue M from SR-14 to 50th Street East
- Avenue P from 10th Street West to 47th Street East

Table 19

**EXISTING INTERSECTION CAPACITY UTILIZATION
AND LANE GEOMETRICS**

INTERSECTION	INTERSECTION APPROACH LANES ¹				
	Northbound TRL	Southbound TRL	Eastbound TRL	Westbound TRL	
60th Street West (NS) at Avenue N (EW)	1 0 0	1 0 0	1 0 0	1 0 0	0.0
Godde Hills Road (NS) at Elizabeth Lake Road (EW)	* * *	* 1 1	1 * 0	1 0 *	0.0
25th Street West (NS) at Elizabeth Lake Road (EW)	* * *	* 0 1	1 * 0	1 0 *	0.0
10th Street West (NS) at Palmdale Boulevard (EW)	2 1 1	2 1 1	2 1 1	2 1 1	0.0
SR-14 SB Off Ramp (NS) at Palmdale Boulevard (EW)	* * *	* 1 1	2 0 *	2 * *	0.0
SR-14 NB Off Ramp (NS) at Palmdale Boulevard (EW)	* 1 1	* * *	2 * *	2 0 *	0.0

¹ When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there right turning vehicles to travel outside the through lanes.

² Intersection Capacity Utilization (ICU) - Level of Service (LOS)

T = Through
 R = Right
 L = Left
 SB = Southbound
 NB = Northbound
 * = Movement not possible

Source: Kunzman Associates

- Palmdale Boulevard from SR-14 to 90th Street East
- City Ranch Road, Tierra Subida, Rayburn Road and Avenue R from the Antelope Valley Landfill to Sierra Highway
- Avenue S from the Antelope Valley Freeway to Sierra Highway

With the passage of Proposition 111 in June 1990, the Los Angeles County Transportation Commission (LACTC) began preparation of a Congestion Management Plan (CMP) for the Los Angeles County area. The intent of this legislation is to maintain specified levels of service on roadways identified as regionally significant. The legislation compels local governments to comply with the provisions of the regional CMP; those cities that do not comply risk the potential loss of gas tax revenues.

~~The Draft CMP has recently been released by the LACTC, and indicates~~ Although the LACTC has not yet completed a draft CMP, it is anticipated that affected local roadways will include State Route 14 and Highway 138. Projects that affect the levels of service on these roadways will be subject to the provisions of the CMP, or any subsequent ordinances adopted by the City which implement the CMP. Because of its regionally significant nature, the Ritter Ranch Specific Plan will likely be subject to the terms of these documents, once they are adopted.

IMPACTS

Construction Impacts

The Ritter Ranch and Other Annexation Areas will result in significant construction traffic along Elizabeth Lake Road and other local arterials. Potential congestion and safety hazards will be mitigated to less than significant levels with the required Traffic Control Plan.

Ritter Ranch Specific Plan Traffic Impacts

• Identification of Future Developments

One of the main tasks in the Palmdale Southwest Area Study was to identify the potential total development which might occur by the year 2010 and by the subarea's build-out (see

Section V.D, CUMULATIVE IMPACTS, for information on forecast buildout traffic volumes and levels of service). The area for detailed land use study was generally determined by City staff as the area south of Avenue P, Rancho Vista Boulevard and Avenue N, and west of the Antelope Valley Freeway. The land use forecasting task was a comprehensive and cooperative effort consisting of several meetings and workshops. Through these workshops, projected land uses for 2010 and build-out were determined for each known development and other various properties. This was accomplished through a detailed examination of the available vacant land and topography in the area, considering developable land, general plan and allowable development densities, proposed known projects, likelihood of their full development and development horizon years. The resultant land use forecasts were arranged according to the City's transportation model zones. For the purposes of this study, in some cases the zones were desegregated and modified to correspond to the boundaries of the proposed projects to facilitate the analysis. Likely traffic routings and project access points were also determined for each zone and development. This information was input into the City's model to allow for the most reasonable and reliable traffic distribution and loadings onto the future circulation system.

Table 20, FORECAST YEAR 2010 LAND USE, lists the land uses projected to occur in each project area by the year 2010. Total projected development amounted to over 15,900 single-family and 4,000 multi-family residential units. Out of this total, the Ritter Ranch development was assumed as 7,200 total units comprised of approximately 6,300 single-family and 900 multi-family units as well as 63 acres of retail commercial development and other uses such as schools, parks and a golf course. The Forecast Year 2010 Land Uses were based on available development information and includes development on the 309-acre portion of the annexation areas to be zoned for development.

Since this land use forecast was prepared, several of the projects within the area have further refined their proposals. The result of this refinement is that the actual number of dwelling units now expected to be constructed within the southwest area is slightly less than projected in the original forecast. Now, the original forecast represents a worst-case scenario. However, the reduction in units is not significant enough to change the proposed roadways as described below.

- *Assumed Circulation System*

For the purposes of regional continuity and consistency, the proposed circulation system in the project area is planned to follow the basic philosophy of the City of Palmdale Traffic

FORECAST YEAR 2010 LAND USE

Project Area	Single-Family (Units)	Multi-Family (Units)	Retail (Acres)	School (Students)
Villages of Ritter Ranch	6,305	895	63.0	1,800
City Ranch North	400			600
City Ranch South	3,558	1,642	17.9	2,400
Valley Ranch	1,137		3.8	600
South Elizabeth Lake Road	1,120			
Santa Fe Hills	684	1,466		1,200
Ana Verde	425			
Leona Valley	412			600
Kinoshita	412			
Lane Ranch	400			
Sagebrush	350			
Messer Ranch	160			
City Thrift	135			600
Godde Hill	125			
San Andreas	100			
Bouquet Canyon	45			
North Elizabeth	40			
North Santa Fe	25			
Northridge West	20			
Portal Ridge South	20			
Stable Area	17			
Peterson	5			
Lazy T	5			
Total	15,908	4,003	84.7	7,800

Note: Forecast land uses are based on a project list prepared in July, 1990. Minor subsequent changes in dwelling unit numbers have occurred; I significantly modify the above estimates or end the result of the cumulative analysis.

Impact Fee Assessment and Master Traffic Level Maintenance Plan. In coordination with the adjacent developments, the project proposes to generally expand and/or extend the existing basic arterial grid system of the southwestern area of Palmdale. As such, to the extent allowed by the rugged topography of the project area and other natural factors, the proposed circulation system provides one-mile spaced major arterial and one-half-mile secondary arterial configurations along with the appropriate level of support provided by the proposed collector and local streets. Particulars of the proposed system are described in Section III, PROJECT DESCRIPTION.

Exhibit 18, YEAR 2010 CIRCULATION SYSTEM shows the proposed circulation system serving the study area. A brief description of the proposed streets follows:

Ritter Ranch Road is proposed as the major east-west artery of the study area, extending from the western terminus of Avenue S through the project connecting to the Elizabeth Lake Road/Godde Hill Road intersection. Ritter Ranch Road is proposed as a four-lane divided arterial from Elizabeth Lake Road to Bridge Road, and a six-lane divided arterial from Bridge Road to the western terminus of Avenue S. Avenue S is proposed to be widened to a six-lane road from its west terminus to the Antelope Valley Freeway.

City Ranch Road, a divided arterial is proposed as a secondary east-west facility, as an extension of Avenue R/Rayburn Road, through the adjacent City Ranch development, terminating at Ritter Ranch Road within the Ritter Ranch project. Avenue R/Rayburn Road is planned to be widened to six lanes from its intersection with Tierra Subida to the Antelope Valley Freeway. City Ranch Road will be a four-lane facility west of Tierra Subida to its terminus at Ritter Ranch Road (the Specific Plan's circulation plan shows City Ranch Road as a two-lane divided roadway west of Ranch Center Drive; however, the City's Traffic Engineer has recommended that this segment be consistent with the roadway to the east to maintain continuity and expand the capacity of the roadway).

Ranch Center Drive will provide north-south circulation. It is proposed as a four-lane divided arterial extending south from Elizabeth Lake Road, generally along the alignment of 40th Street West, providing connection to both City Ranch Road and Ritter Ranch Road (like City Ranch road, the Specific Plan's circulation plan shows Ranch Center Drive between Elizabeth Lake Road and City Ranch Road as a two-lane divided roadway; however, the City's Traffic Engineer has recommended that this segment be consistent with the roadway to the south to maintain continuity and to provide better access into the Specific Plan area).

Table 21

**TRIP GENERATION FORECAST
RITTER RANCH PROJECT**

Land Use	Daily (Two-way)	AM PEAK			PM	
		In	Out	Total	In	C
Single-Family (6,305 Units)	(10.06) ¹ 63,430	(0.20) 1,260	(0.55) 3,470	(0.75) ² 4,730	(0.63) 3,970	(0.2) 2,3
Multi-Family (895 Units)	(5.98) 5,350	(0.07) 60	(0.37) 330	(0.44) 390	(0.38) 340	(0.1) 1
Retail (63.0 Acres)	(275.6) 17,335	(4.10) 260	(1.70) 110	(5.80) 370	(11.93) 750	(12.7) 7
School (1,800 Students)	(1.30) 2,340	(0.26) 470	(0.14) 250	(0.40) 720	(0.01) 20	(0.1) 1
Park (198.0 Acres)	(3.66) 725	(0.55) 110	— —	(0.55) 110	— —	(0.1) 1
TOTAL	89,180	2,160	4,160	6,320	5,080	3,3

¹ Top number is trip rate, bottom number is auto trip forecast.

² ITE peak hour factors were used to determine trip ends.

Outside the Ritter Ranch Property, Bridge Road is proposed as the main north-south arterial serving the City Ranch South project. This four-lane divided major arterial is proposed to extend southerly from Elizabeth Lake Road from just west of 25th Street West connecting with both City Ranch and Ritter Ranch roads. Santa Fe Hills Drive is proposed as a divided four-lane minor arterial that would run east-west between Elizabeth Lake Road and 25th Street West, through the Santa Fe property, north of Elizabeth Lake Road.

A number of other north-south and east-west collectors are also proposed to fill in and complete the circulation system network. Access to the east and south to the Palmdale area and the Antelope Valley Freeway is the most essential circulation and access need of the proposed development. The two proposed east-west arterials, City Ranch Road (extension of Avenue R) and Ritter Ranch Road (extension of Avenue S), along with the improvement of Elizabeth Lake Road to urban major arterial standards, are aimed at providing adequate capacity for the projected demand.

- *Traffic Generation*

Table 21, TRIP GENERATION FORECAST - RITTER RANCH PROJECT, lists the traffic generation rates and the estimated peak hour and daily traffic volumes. The proposed project is expected to generate 89,180 Average Daily trips (ADT). An estimated 6,320 and 8,470 trips will occur during the AM Peak and PM Peak hours, respectively.

- *Projected Year 2010 Operating Conditions With Project*

This section describes the future circulation and operating conditions and potential capacity deficiencies in the study area based on the forecast traffic volumes from the year 2010 land use assumptions.

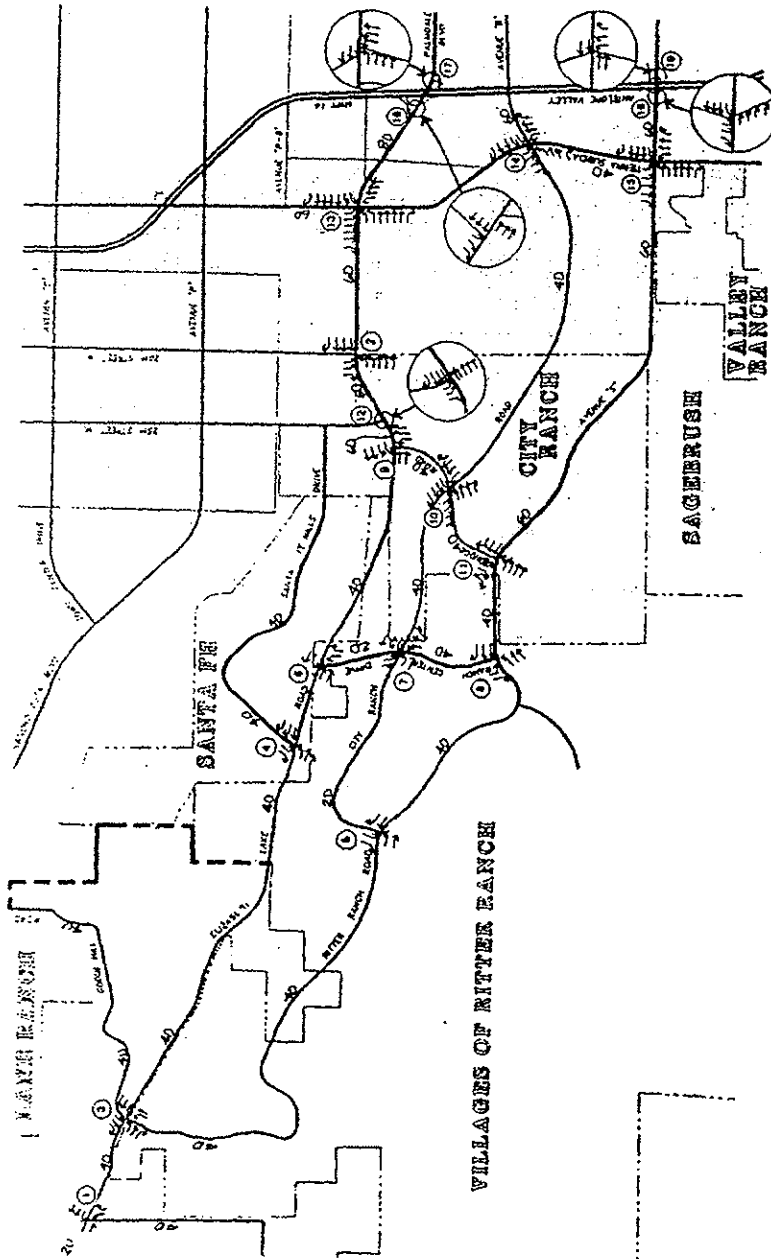
Traffic forecasts and preliminary capacity and circulation deficiency analysis were conducted using the City of Palmdale's Travel Demand Model. Travel demand on the area's circulation system will increase substantially as a result of overall development of the study area as well as within the Antelope Valley in general, which would contribute heavily to increases in through traffic. Project development would potentially impact all the study area streets and intersections, while growth in through traffic would primarily

Year 2010 Circulation System

Study Intersections and Assumed Lane Configurations

Exhibit 18

Source: Kuntzman and DKS Associates



Ritter Ranch Specific Plan



impact major north-south and east-west routes. These major through routes include Elizabeth Lake Road, Avenue S, 10th Street West/Tierra Subida Avenue.

Midblock Daily Analysis. Table 22, FORECAST YEAR 2010 DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE, indicates forecast year 2010 daily volumes and levels of service for the year 2010 circulation system, based on the capacity criteria discussed earlier. The majority of the study area arterials are projected to operate at an acceptable daily level of service by the year 2010 (including project traffic). Facilities which are projected to operate at an unacceptable level of service are mostly limited to the, eastern end of the study area, near the Antelope Valley Freeway. These potentially deficient arterial segments are indicated with an asterisk in Table 22, FORECAST YEAR 2010 DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE. The following paragraphs further discuss these segments and suggest arterial geometrics which would be required on these facilities to improve the quality of traffic operations, thus providing an acceptable level of service.

- Elizabeth Lake Road is projected to operate at an unacceptable level of service between 10th Street West and 20th Street West. This segment is recommended to be classified as an urban major arterial with three through lanes in each direction.

The intersection capacity analysis, presented in the next section, indicated that Elizabeth Lake Road would operate satisfactorily during both peak hours with the basic three through approach lanes at the intersections of 25th Street West and 20th Street West. These three lanes will increase to four through lanes at the intersection of 10th Street West to provide satisfactory operational conditions at that intersection. This mitigation not only improves the traffic operation at the above intersection on a peak hour basis, but will enhance the daily operation on this segment of Elizabeth Lake Road as well. Elizabeth Lake Road is projected to operate at LOS F just west of Bouquet Canyon Road with a projected daily volume of 15,100 ADT. Two lanes in each direction would be necessary for this segment to function at LOS C or better.

- Ritter Ranch Road/Avenue S is projected to operate at LOS D just west of Tierra Subida Avenue with a daily traffic volume of 45,300, which gradually drops to 36,700 east of the 20th Street West alignment. An adequate number of eastbound lanes at the intersection of Avenue S with Tierra Subida will enhance the traffic operation on this segment of Avenue S. Ritter Ranch Road will also operate at level of service

Table 22

FORECAST YEAR 2010 DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE

Roadway	Volume			Volume		
	With Project	V/C ¹	LOS ²	Without Project	V/C	LOS
Santa Fe Hills Dr						
Elizabeth Lake Rd./25th St W	12,300	0.44	A	10,800	0.38	A
Elizabeth Lake Rd.						
West of Leona Valley	11,200	0.74	C	11,200	0.74	C
Leona Valley/Bouquet Canyon Rd.	15,100	1.01	F*	13,300	0.88	D*
Bouquet Canyon Rd./Godde Hill Rd.	19,900	0.55	A	19,400	0.53	A
Godde Hill Rd./Santa Fe Hills Dr.	11,200	0.62	B	8,000	0.44	A
Santa Fe Hills Dr./Ranch Center Dr.	10,600	0.29	A	9,100	0.25	A
Ranch Center Dr./Bridge Rd.	16,600	0.46	A	6,200	0.17	A
Bridge Rd./25th St. W	49,000	0.82	D*	30,500	0.50	A
25th St. W/10th St. W	47,200	0.79	C	40,000	0.66	B
20th St. W/10th St. W	55,200	0.92	E*	52,900	0.88	D*
Palmdale Blvd.						
10th St. W/Antelope Valley Fwy.	48,000	0.67	B	48,000	0.67	B
City Ranch Rd.						
Ritter Ranch Rd./Ranch Center Dr.	5,700	0.41	A	1,400	0.10	A
Ranch Center Dr./Bridge Rd.	15,900	0.57	A	3,200	0.11	A
Bridge Rd./20th St. W. alignment	13,300	0.48	A	3,400	0.12	A
20th St. W. alignment/Tierra Subida Ave.	13,300	0.48	A	6,500	0.23	A
Avenue R						
Tierra Subida Ave./Division St.	31,500	0.58	A	27,600	0.51	A
Ritter Ranch Rd.						
Godde Hill Rd./City Ranch Rd.	13,300	0.74	C	4,400	0.24	A
South of Elizabeth Lake Rd.	14,800	0.82	D*	4,400	0.24	A
40th St. W alignment/Ranch Center Dr.	26,500	0.74	C	3,000	0.08	A
Ranch Center Dr./Bridge Rd.	31,800	0.80	C	4,100	0.10	A
Bridge Rd./20th St. W alignment	36,700	0.68	B	28,500	0.52	A
20th St W alignment/Tierra Subida Ave.	45,300	0.84	D*	38,900	0.72	C
Avenue S						
Tierra Subida Ave./Antelope Valley Fwy	34,800	0.58	A	28,100	0.46	A
Bouquet Canyon Rd.						
South of Elizabeth Lake Rd.	5,200	0.19	A	5,200	0.19	A
W of City Thrift	5,800	0.48	A	5,700	0.47	A
Godde Hill Rd.						
60th St West/Elizabeth Lake Rd.	22,300	0.74	C	15,100	0.50	A
Ranch Center Dr.						
Elizabeth Lake Rd./City Ranch Rd.	9,600	0.69	B	2,900	0.20	A
City Ranch Rd./Ritter Ranch Rd.	10,100	0.72	C	1,100	0.07	A

Table 22 (continued)

FORECAST YEAR 2010
DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE

Roadway	Volume			Volume		
	With Project	V/C ¹	LOS ²	Without Project	V/C	LOS
Bridge Rd.						
Elizabeth Lake Rd./City Ranch Rd.	28,900	0.80	C	16,300	0.45	A
City Ranch Rd./Ritter Ranch Rd.	20,300	0.56	A	8,000	0.22	A
25th St. West						
Ave. P-8/Elizabeth Lake Rd.	27,500	0.61	B	27,500	0.61	B
20th St. West						
Ave. P-8/Elizabeth Lake Rd.	23,900	0.80	C	23,900	0.80	C
10th St. West						
Ave. P-8/Palmdale Blvd.	51,800	0.86	D*	50,100	0.83	D*
Tierra Subida Ave.						
Palmdale Blvd./S. of Palmdale Blvd.	16,200	0.30	A	11,900	0.22	A
S. of Palmdale Blvd./Ave. R	24,800	0.46	A	22,400	0.41	A
Ave. R/Ave. S	21,500	0.60	B	23,400	0.65	B
Ave. S/Barrel Springs Rd.	9,300	0.78	C	8,000	0.66	B

Note: ¹Volume to Capacity Ratio²Level of Service

*Exceeds acceptable Level of Service value.

Note: See Table 28, FORECAST BUILDOUT DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE for ultimate traffic volume projections which indicates additional level of service deterioration.

D just south of Elizabeth Lake Road. The proposed site plan reveals that a local access is provided for Ritter Ranch Road in close proximity to Elizabeth Lake Road, which causes this segment of Ritter Ranch Road to have a daily demand of 14,800 vehicles. However, by mitigating the intersection of Ritter Ranch Road with Elizabeth Lake Road, the daily operation is anticipated to improve as well.

- 10th Street West is projected to operate at LOS D north of Palmdale Boulevard. Daily traffic volumes are projected to be 51,800. As discussed in forthcoming paragraphs, mitigation measures are provided at the intersection of 10th Street West and Palmdale Boulevard to satisfy the acceptable level of service.

Intersection Capacity Analysis. Nineteen intersections within the study area were identified for capacity analysis. These intersections are anticipated to be critically impacted by the cumulative traffic in the year 2010. For the purposes of this study, the unsignalized existing intersections and all planned intersections were assumed to warrant a signal by the year 2010. Exhibit 18, YEAR 2010 CIRCULATION SYSTEM, shows the 19 study intersections under consideration for the year 2010.

The City of Palmdale Traffic Model was utilized to generate peak hour turning movements at the 19 intersections. In order to conduct the intersection capacity analysis, the model-derived turning volumes were rounded to the nearest 10 and future lane configurations were assumed taking into consideration the minimum required number of through lanes, as determined through midblock daily analysis and considerations for turning lanes. As a design standard, a left-turn lane is provided for two or four-lane facilities, or for situations where left-turning volumes exceed 100 vehicles per hour (VPH), as is suggested by the Highway Capacity Manual (HCM). The right-turn lane is considered to be shared with the outermost through lane unless right-turning volumes exceed 100 VPH and right-of-way is available. A free right-turn lane (green arrow) is suggested where lack of intersection capacity dictates to do so. Additional traffic lanes (left, through or right) were recommended as deemed necessary. Exhibit 18, YEAR 2010 CIRCULATION SYSTEM, shows the assumed lane configurations at the study intersections for capacity analysis.

The Planning Application of the Critical Movement Analysis procedures, which are outlined in Transportation Research Board Circular 212, was the methodology used to determine the intersection utilizations. Level of service (LOS) values were assumed, as shown in Table 23, LEVEL OF SERVICE VALUES. During the peak hour, LOS D is assumed to be the maximum acceptable value. At LOS E, congestion begins to occur in quantities and for durations beyond acceptable limits. Although it is theoretically impossible to observe LOS

Table 23

LEVEL OF SERVICE VALUES

VOLUME/CAPACITY RATIO	LEVEL OF SERVICE
0 - .60	A
.61 - .70	B
.71 - .80	C
.81 - .90	D
.91 - .99	E
1.00+	F

F, it serves to indicate that the travel demand for the intersection during LOS E and LOS F, congestion will occur during the peak hour. The duration of the congestion is dependent upon many operational considerations which can be evaluated during the operation of the intersection.

Intersection capacity analysis often presumes lane capacities between 1,500 and 1,700 vehicles per hour. The hourly lane capacities of 1,600 vehicles per lane per hour were assumed as an average of those volumes for the purposes of this study. Reduction in assumed capacity as a result of lost time was applied as necessary. Table 24, SUMMARY OF LEVEL OF SERVICE - YEAR 2010, summarizes the results of the intersection capacity analysis for the AM and PM peak hour volumes. All intersections will operate satisfactorily under assumed lane configurations during both the AM and PM peak periods.

• *Projected Year 2010 Operating Conditions-- Without Project*

To identify the specific impacts of the Ritter Ranch Development on the planned circulation system, it was necessary to forecast future traffic volumes without the project. For this purpose special model runs were performed which assumed all other developments in place except Ritter Ranch. In essence, this analysis could be considered as the "no project" scenario for this development. Table 22, FORECAST YEAR 2010 DAILY TRAFFIC VOLUME AND LEVELS OF SERVICE, summarizes the results of this analysis by indicating traffic volumes which would exist in the study area by the year 2010 if the Ritter

Table 24

YEAR 2010
SUMMARY OF LEVEL OF SERVICE

Intersection	AM Peak		PM Peak	
	V/C	LOS	V/C	LOS
Bouquet Canyon/Elizabeth Lake Road	0.59	A	0.63	B
Elizabeth Lake Road/20th Street West	0.83	D	0.79	C
Godde Hill Road/Elizabeth Lake Road	0.57	A	0.75	C
Santa Fe Hills/Elizabeth Lake Road	0.19	A	0.43	A
City Ranch Road/Ritter Ranch Road	0.26	A	0.51	A
Ranch Center Drive/Elizabeth Lake Road	0.49	A	0.46	A
Ranch Center Drive/City Ranch Road	0.39	A	0.48	A
Ranch Center Drive/Ritter Ranch Road	0.75	C	0.45	A
Bridge Road/Elizabeth Lake Road	0.88	D	0.81	D
Bridge Road/City Ranch Road	0.64	B	0.79	C
Bridge Road/Ritter Ranch Road	0.43	A	0.85	D
25th Street West/Elizabeth Lake Road	0.66	B	0.75	C
10th Street West/Palmdale boulevard	0.85	D	0.89	D
Tierra Subida/Avenue R	0.77	C	0.89	D
Tierra Subida/Avenue S	0.89	D	0.89	D
SB Off Ramp/Palmdale Boulevard	0.82	D	0.89	D
NB Off Ramp/Palmdale Boulevard	0.43	A	0.82	D
SB Off Ramp/Avenue S	0.24	A	0.81	D
NB Off Ramp/Avenue S	0.33	A	0.87	D

Ranch property was left entirely undeveloped. By comparing traffic conditions without the project to traffic conditions with the project it is possible to identify the highway links which would be the most impacted as a direct result of traffic related to the Ritter Ranch project.

Table 22, FORECAST YEAR 2010 DAILY TRAFFIC VOLUMES AND LEVELS OF SERVICE, also identifies arterial links which would operate at daily levels of service worse than C, below City standards, without the Ritter Ranch traffic. The following paragraphs compare the traffic volumes on the arterial network with and without the Ritter Ranch traffic concentrating first on roadway segments which would operate at worse than LOS C.

Elizabeth Lake Road between 10th Street and 20th Street would carry heavy traffic volumes regardless of the trips from the Ritter Ranch development. Traffic volumes on this link with the Ritter Ranch development would be increased by 2,300 daily trips. This link would require additional lanes at the intersection of Elizabeth Lake Road and 10th Street West to operate at an acceptable level of service regardless of the Ritter Ranch project. Elizabeth Lake Road just west of Bouquet Canyon Road, would require additional lanes regardless of the trips from the Ritter Ranch development. Traffic volumes on this link with the Ritter Ranch development would be 15,100 compared to 13,300 without the project, an increase of 1,800 daily trips. The primary reason for capacity deficiencies on this segment is its assumed two-lane cross section. In addition, investigation of traffic pattern shows that most of the traffic volumes causing the deficiency would be traffic between points north on Godde Hill Road and developments in Leona Valley. This is apparent since capacity deficiencies only exist on the short segment west of Bouquet Canyon Road and to the east of Leona Valley. The impact of Ritter Ranch traffic would be more significant on the Elizabeth Lake Road segment between 20th Street West and Bridge Road. Traffic volumes with the Ritter Ranch development would be between 7,200 and 18,500 daily trips higher than without the project. Throughout the project, daily volumes on this segment of Elizabeth Lake Road would range between 49,000 and 47,200 trips which would not require further improvements beyond six lanes.

Traffic volumes on Ritter Ranch Road with the project would be as much as 27,700 higher than without the project which would require a four-lane urban major arterial between Bridge Road and Ranch Center Drive. On the segment of Avenue S just west of Tierra Subida, year 2010 forecasts had indicated that additional lanes may be needed. Without the project on this segment, volumes would be lower by 6,700 daily trips; operating level would be LOS A and additional lanes would not be required. However, examination of the traffic patterns on this link indicate that heavy volumes are mainly due to the traffic loading from the Valley Ranch development.

Capacity deficiencies only exist on a short segment east of Valley Ranch property and not for a significant length of the proposed roadway. The Ritter Ranch Road project will contribute approximately 14 percent to total daily traffic of this link.

On 10th Street West, north of Elizabeth Lake Road, traffic volumes with Ritter Ranch are approximately 51,800 trips, whereas, without Ritter Ranch, are 50,100. The need for additional lanes on this segment would exist even without the Ritter Ranch traffic.

On other major north-south arterials, 25th Street West and 20th Street West, the impacts of the Ritter Ranch project would be relatively insignificant. There would be no capacity problems on these segments with or without the project traffic.

Traffic volumes on City Ranch Road would be 4,300 to 12,700 higher with the Ritter Ranch traffic. However, there would not be any capacity problems on this arterial and all segments would operate at LOS A in either case.

If Ritter Ranch were not developed, many of the above-stated improvements would not be constructed.

Further AM and PM peak hour intersection analyses provide the necessary information on more detailed cross sectional needs and intersection approach configurations for the planned roadways relative to turn lanes, signalization, possible phasing and other needs (see Intersection Capacity Analyses section above).

Conclusions and Recommendations

The proposed arterial access and circulation system within the planned Ritter Ranch project is adequate to serve the needs of the anticipated levels of development as outlined in the Ritter Ranch Specific Plan. Only a few arterial segments within the broader study area show capacity deficiencies by the year 2010, the expected build-out horizon year of the project. These projected potential traffic congestion spots are concentrated mainly at the eastern end, near the Antelope Valley Freeway, on Avenue S, Elizabeth Lake Road and 10th Street West. The relationship of these capacity deficiencies with the traffic generated by the Ritter Ranch project is identified in the Year 2010 traffic conditions discussion. Several key reasons exist for these capacity shortfalls. The following paragraphs summarize these issues:

- Access to and from the Antelope Valley Freeway, with interchanges at Palmdale Boulevard and at Avenue S, results in heavy concentration of traffic volumes on these two

east-west arterials with the highest volumes in the range of 48,000 to 55,000; whereas Avenue R and City Ranch Road are uncongested and carry a maximum daily traffic volume of 31,500.

- Heavy volumes on 10th Street West are mainly generated by the zones north of Elizabeth Lake Road. This area is projected to experience intense future commercial development. A large part of these same heavy traffic volumes contribute to congestion on Elizabeth Lake Road between 10th Street West and 20th Street West. Additionally, it was clearly demonstrated through modeling analysis that the capacity deficiencies on this segment would exist with or without the Ritter Ranch project.
- Lack of additional east-west arterial support between Avenue P and Elizabeth Lake Road contributes heavily to the concentration of traffic on the latter arterial. Traffic generated from zones between Avenue P and Elizabeth Lake Road, which is destined to the freeway and points east of the area, has no alternative but to use Elizabeth Lake Road, further worsening the operating conditions on this segment of the arterial.
- The offset orientation of the proposed Bridge Road with 25th Street West at Elizabeth Lake Road requires the traffic between these two streets to double-up on Elizabeth Lake Road putting additional traffic on this link.

Expanded arterial cross sections which would be required by the year 2010 to provide acceptable operation on the area's circulation system, within practical limits have been identified. Furthermore, the capacity analysis of 19 study intersections has identified specific future intersection lane needs and approach configurations for acceptable peak hour operation.

Given the recommended improvements to the existing arterial system, there would still remain a few arterial segments (mainly on Elizabeth Lake Road) which would operate below Level of Service C on a daily basis. The same segments, however, would operate satisfactorily at the terminus intersections during the peak hours with the recommended intersection configurations. Therefore, it is not recommended that Elizabeth Lake Road be widened beyond six lanes. Instead, it is recommended that this arterial be designed to urban major arterial standards between Bridge Road and the Antelope Valley Freeway to provide higher capacity and better overall operating conditions.

In addition, in order to mitigate the capacity shortfalls and plan for better overall mobility, it is recommended that mitigation options not be limited only to adding more lanes to the

planned arterial system. Some potential alternative measures recommended for consideration include:

- Additional arterial connections to provide circulation and access alternatives should be examined north of Elizabeth Lake Road and east of 20th Street West
- Providing the majority of access to the Valley Ranch development from Tierra Subida Avenue, and possibly upgrading the classification to a major arterial and/or add lanes in lieu of requiring additional lanes on Avenue S/Ritter Ranch Road west of Tierra Subida.

Although the majority of the immediate study area is planned to be built out by the year 2010, the horizon year for this study, there would still remain further developable area within the City's General Plan and Sphere of Influence area. Build-out of these areas would undoubtedly add more traffic to the circulation system of the southwestern Palmdale area. Several segments of the area's planned year 2010 network would most likely require further capacity improvements due to additional traffic at the full buildout of the City's General Plan. By the year 2010, LOS F would occur on Elizabeth Lake Road between Godde Hill Road and Bouquet Canyon Road. The buildout traffic forecasts by DKS indicate that four lanes would be needed on this segment to achieve LOS C. A complete analysis of the further incremental impacts of the General Plan buildout will determine all future additional right-of-way needs, especially on arterials most heavily impacted by through traffic. Timing of the construction of these additional lanes should be determined based on future analysis of the demand as projected developments within the area are implemented.

Other Annexation Areas

As previously discussed, the 309-acre portion of the annexation areas are permitted up to 309 dwelling units, resulting in an estimated 3,100 Average Daily Trips (no development is permitted on the 140-acre microwave station sites and no development plans have been submitted for the 309-acre area). The 3,100 ADT is not considered to represent a significant traffic impact, as it will not individually impact local roadways, and is within General Plan traffic forecasts for the area. In addition, development of these properties will require construction of necessary road improvements, including offsite road improvements as part of the Amargosa Creek Improvement project. However, this increment will contribute to the cumulative traffic impacts which will affect the region's roadways.

Offsite Infrastructure Improvements

The Amargosa Creek Improvement Project will require installation of major utilities, as well as major roadway and channel improvements. Road improvements include construction of Elizabeth Lake Road to its ultimate configuration between 20th Street West and Godde Hill Road (widening the two-lane road to up to six lanes total). Road widening and channel improvements (to Amargosa Creek where it is adjacent to the road) will require substantial temporary lane closures and detours. Construction traffic will also cause significant congestion. However, temporary construction traffic impacts will be substantially mitigated by obtaining most of the fill material from the project vicinity and by implementing a Construction Traffic Control Plan (to be developed prior to grading).

Phasing of Street Improvements:

Elizabeth Lake Road: Dedications and improvements of Elizabeth Lake Road from Godde Hill Road to 20th Street West ~~to be completed before Ritter Ranch takes occupancy of any units in their Phase I. These shall be complete roadway improvements~~ shall include: curb, gutter, sidewalks (and trails), street lighting, full width paving, etc. Dedications and improvements shall be completed in accordance with design plans for Assessment District 90-01.

Avenue S and Ritter Ranch Road: ~~Ritter Ranch shall be responsible for full right-of-way dedication and street improvement of these roadways within their Specific Plan area. Those portions of roadways not within either specific plan areas shall have right-of-way acquired and street improvements constructed on a pro rata basis between the two developments.~~ Avenue S and Ritter Ranch Road construction shall be tied to the level of service at key intersections on Elizabeth Lake Road. When studies have determined that peak-hour level of Service D is projected to be reached, then Avenue S and Ritter Ranch Road, from Elizabeth Lake Road to the Antelope Valley Freeway, shall be constructed. Level of service studies shall be ~~conducted~~ **conducted** at four Elizabeth Lake Road intersections: Bridge Road, 25th Street West, 20th Street West, and 10th Street West. If LOS D is reached at any one of these, then the described improvements shall be undertaken. Avenue S may be initially constructed to four traffic lanes, plus left turn lanes where appropriate. Ritter Ranch Road may be initially constructed to two lanes, plus left turn lanes where appropriate. Both streets shall be fully completed (curb, gutter and sidewalk, street lighting, full width paving, etc.), prior to taking occupancy of any units beyond 50 percent of the total number of approved units in the Ritter Ranch and City Ranch Specific Plans.

City Ranch Road: ~~Ritter Ranch shall be responsible for dedicating rights-of-way and constructing those portions of City Ranch Road not within the City Ranch Specific Plan area.~~ City Ranch Road shall be constructed from Bridge Road to Tierra Subida at such time as studies indicate a peak-hour Level of Service D is projected to be reached on Avenue S at either Bridge Road, Tierra Subida, or the Antelope Valley Freeway. Initial improvements from Bridge Road to Tierra Subida may be limited to two traffic lanes, plus left turn lanes where appropriate. The street shall be fully completed (curb, gutter and sidewalk, street lighting, full width paving, etc.), prior to taking occupancy of any units beyond 75 percent of the total number of approved units in the Ritter Ranch and City Ranch Specific Plans.

Tierra Subida: ~~The Ritter Ranch shall be responsible for the right-of-way shall be acquired and improvements shall be constructed on Tierra Subida from City Ranch Road to Rayburn Road, consistent with the intersection alignment study conducted by Civic Engineering, and as directed by the City Traffic Engineer.~~ Rights-of-way and improvements shall also be ~~acquired and constructed their responsibility~~ along Rayburn Road east of Tierra Subida, again consistent with the intersection alignment study conducted by Civic Engineering, and as directed by the City Traffic Engineer. Tierra Subida shall be constructed from City Ranch Road to Rayburn Road and Rayburn shall be improved at such time as studies indicate a peak-hour Level of Service D is projected to be reached at Avenue S at either Bridge Road, Tierra Subida or the Antelope Valley Freeway. Initial improvements may be limited to four traffic lanes, plus left turn lanes where appropriate, provided that these improvements shall maintain at least a peak-hour LOS D. The streets shall be fully completed (curb, gutter, and sidewalk, street lighting, full width paving, etc.) prior to taking occupancy of any units beyond 75 percent of the total number of approved units in the Ritter Ranch Specific Plan.

MITIGATION MEASURES

- #72. ~~All road improvements shall be designed in accordance with City of Palmdale and Ritter Ranch Specific Plan roadway design standards as approved by the City Engineer. Prior to development application approval, the Applicant will be required to submit a Transportation Demand Management Plan and a Focused Traffic Study for review and approval by the Director of Planning and the Traffic Engineer, as appropriate, to determine the necessary improvements for impacts generated by that project. These plans shall be prepared in accordance with the Los Angeles County Transportation Commission's Congestion Management Plan, the City's transportation~~

* indicates Mitigation Measures which apply to both the Ritter Ranch Specific Plan and Annexation Area.

~~analysis guidelines, the City's transportation plan, and the Engineering Design Standards. Necessary improvements shall be determined by the City Traffic Engineer, and shall include, but not be limited to, all onsite and offsite road improvements to achieve a Level of Service D (peak period) or better with ultimate traffic projections. On the basis of this and other studies, the developer will improve or fund a pro rata share of improvements. The developer shall pay appropriate traffic impact fees in accordance with City Ordinance 825, and all other fees for facilities and services that may be in place at the time of issuance of certificates of occupancy. Phasing of offsite improvements shall be determined by the City Engineer, as described in Section IV.I of the EIR.~~

- ~~*#73. The applicant shall be required to submit a Traffic Control Plan for review and approval by the City Traffic Engineer, prior to issuance of grading permits which incorporate state of the practice standards to minimize construction related traffic impacts. Said plan shall be consistent with traffic measures for the Amargosa Creek Improvement Project. All road improvements shall be provided in accordance with City design standards to the satisfaction of the City Engineer, prior to issuance of occupancy permits.~~
- ~~*#74. The Ritter Ranch Specific Plan identifies ultimate onsite roadway cross sections and lane configurations necessary to serve the project at buildout. Phasing of onsite roadway improvements shall be in accordance with the Ritter Ranch Specific Plan Phasing Plan as approved by the City Public Works Department. The applicant shall be required to submit a Traffic Control Plan for review and approval by the City Traffic Engineer, prior to issuance of grading permits, which incorporate state of the practice standards to minimize construction related traffic impacts. Said plan shall be consistent with construction traffic measures for the Amargosa Creek Improvement Project.~~
- ~~#75. Prior to development application approval, the applicant shall pay appropriate traffic impact fees in accordance with City Ordinance 825, and all other traffic fees applied City-wide that may be in place at the time of issuance of Certificates of Occupancy. These traffic impact fees provide the project's required pro rata contribution towards offsite roadway improvements needed to service the development. Funds generated from the traffic impact fees shall be applied toward offsite improvements to Elizabeth Lake Road, Palmdale Boulevard, Avenue S, and 10th Street West/Tierra Subida Road, as approved by the City Public Works Department.~~

~~In addition to all onsite improvements, the Applicant shall be required to provide offsite improvements to Rayburn Road, Tierra Subida, Avenue S, City Ranch Road,~~

~~Bouquet Canyon Road, and Elizabeth Lake Road, including the roadway west of Godde Hill Road as determined appropriate by the City Traffic Engineer (construction shall be completed prior to occupancy).~~

~~Offsite improvements shall include provision of road configurations shown in Exhibit 18, YEAR 2010 CIRCULATION SYSTEM, including the following:~~

- ~~• Widen Elizabeth Lake Road to six through lanes between 10th Street West and SR 14, including provision of three through lanes for Elizabeth Lake Road at both intersection approaches at 20th Street West and 25th Street West.~~
- ~~• Widen Elizabeth Lake Road to four lanes from Bridge Road to west of Godde Hill Road.~~

- #76. ~~The developer(s) of Ritter Ranch may construct offsite roadway improvements in lieu of Traffic Impact fees, as approved by the City Public Works Department. If, as a result of project impacts, the level of service falls below either the standards set by the Los Angeles County Transportation Commission's Congestion Management Plan, or the policies set by the City's General Plan, the applicant shall implement improvements or services necessary to bring the roadway segment into compliance.~~
- #77. ~~The developer shall comply with the provisions of the Congestion Management Plan adopted pursuant to State law. The developer shall construct a four lane divided roadway section of Ranch Center Drive between Elizabeth Lake Road and Ritter Ranch Road, and a four lane divided roadway section on City Ranch Road between Ritter Ranch Road and Ranch Center Drive.~~

UNAVOIDABLE SIGNIFICANT IMPACTS

If the off-site improvements are not constructed by the time the Ritter Ranch development begins, a significant impact could occur to the existing circulation system. There is no funding mechanism in place for the City to provide these regional improvements (an Assessment District is in process to fund Elizabeth Lake Road improvements) although the Bouquet Canyon Road/Godde Hill Road segment would still be at LOS F with the Assessment District improvements.

J. CULTURAL RESOURCES

Archaeological and historical information in this section is from a "Cultural Resources Overview of the Ritter Ranch Project Area" covering the Ritter Ranch project area prepared by RMW Paleo Associates August 29, 1990, and a "Cultural Resources Assessment" prepared for the Ritter Ranch property by LSA Associates, Inc., revised in August, 1990. The RMW report also addresses several sites located in the Ritter Ridge area, which is no longer part of this project. A Phase II archaeology study was completed by LSA in September, 1990, addressing 28 Ritter Ranch sites (revised June 14, 1991). Paleontological information is taken from the LSA "Cultural Resources Assessment" and Geological Survey maps. Although no field survey was conducted for the Other Annexation Areas, these sites are anticipated to contain significant cultural resource deposits. The following section describes the existing conditions of the archaeological, historical and paleontological resources of the project site, analyzes the potential impact upon those resources of project development, provides measures designed to mitigate project related impacts, and identifies the anticipated level of significance of project impacts following implementation of recommended mitigation measures.

EXISTING CONDITIONS

Ethno-Archaeological Background

Numerous archaeological sites are known to exist in the local region, but excavation and study of these deposits has been quite limited. Because of this, a complete and reliable local chronology has yet to be developed. The lack of archaeological detail in the region extends into recent times. However, evidence suggests that trade was a major reason for human presence in the area during the Late Prehistoric era (250 B.C. to A.D. 1650).

The latest major ethnographic work to describe the California Indians is Volume 8 of the Smithsonian Handbook of North American Indians. This volume indicates the study area was occupied by a group known as the Tataviam. Very little is known of Tataviam culture, society or environmental adaptations. Apparently, they were quite similar to groups to the northeast, east and south. The Kitanemuk were located to the north and the Serrano to the east and south. If the supposition that trade was the basis for human occupation of the area during the Late Prehistoric is correct, it is probable that elements from all the above listed societies, and perhaps others, are to be found in the study area.

The Spanish, and later the Mexicans, made no use of the Ritter Ranch study area. A few scattered ranches, none of which were on the Ritter Ranch property, were operational in the region during the Spanish/Mexican era. Some expeditions did pass through the area, but they left no permanent indicators. The arrival of the Southern Pacific railway in 1876 provided the stimulus for some development in the Palmdale area by European immigrants. However, the lack of reliable water resources kept growth at a slow pace until World War II. The activation of Muroc Army Airfield in 1942 and the development of the local aerospace industry in the 1950's spurred rapid increases in population in the Palmdale area through the present.

Development of the Ritter Ranch property appears to be confined to the 20th century. The Ritter family arrived from Germany in the 1880's and established themselves on a 160-acre homestead in Leona Valley. Other land acquisitions were made over subsequent decades. Ranching and agriculture were the major onsite activities. The Ritter family operated a hunting club on the property, but the date of construction is uncertain. The hunting club is identified as the Ritter Ranch on current maps. The original ranch was located approximately one mile to the east in Ritter Canyon.

Archaeological/Historical Resources

Complex archaeological deposits are found throughout the full elevation and environmental range of the project site. The following are brief descriptions of the known archeological and historical deposits on the Ritter Ranch property. Each description contains a statement of what is known regarding the significance of the site and recommends appropriate future action. Recommended test excavations are intended to determine depth, lateral extent and degree of preservation of resources. Recommendations for the future management of individual deposits will be based on the results of test excavations. CA-LAN- identifiers show that the site has been recorded with the California Archaeological Survey. RR- prefixes identify isolated tools located during the 1989 and 1990 LSA Associates surveys. These isolates have also been recorded with the California Archaeological Survey, but permanent identifying numbers are not normally assigned to isolates.

Much of the Ritter Ranch property south of Elizabeth Lake Road has previously been subjected to cultural resources reconnaissance. RMW Paleo Associates' first major work effort was to review all existing information concerning the project site. The following is a summary of prior archaeological work on the Ritter Ranch property.

Four additional studies have been completed that cover portions of the Ritter Ranch project area. A survey by Roger Robinson (Antelope Valley College) completed in 1979 found an isolated rhyolite core. Wessel completed a survey for fire breaks in the western portion of the study area in 1985 which identified one historic site. Van Horn examined an area in the eastern part of Ritter Ranch in 1985 and discovered five archaeological sites and six isolated tools. Field reconnaissance by Wirth Environmental Services in 1987 found one archaeological site in the northeastern portion of Ritter Ranch.

A large portion of the southwestern half of the Ritter Ranch property was not surveyed due to steep inaccessible terrain. The archaeological site distribution of the surveyed portions of the property indicates that the site density of the unexplored regions may be as high as in those portions that have been examined.

CA-LAn-405: This is a prehistoric site consisting of a two meter wide stone lined circular pit recorded by Hagan and King in December of 1969. The pit was described as a roasting pit based on the heat altered appearance of the rocks. The significance of the site is unknown. However, the site is located within the Southern California Edison power line corridor and will not be disturbed by project development. Therefore, while further research would be desirable, test excavation is not necessary.

CA-LAn-767: This significant site is a cemetery located immediately south of Elizabeth Lake Road. Eleven human burials were removed from this site by the Antelope Valley College in 1975. The burials were removed from a block excavation, so it appears that other burials may exist at the site. However, subsequent site excavation conducted by RMW Paleo Associates revealed that this site has been badly damaged by previous excavations and, apparently, by illegal collecting activity (pot hunting). Due to the severe damage onsite, it was determined that little likelihood exists that any extensive deposit remains can be found. During the subsequent excavation, only two small fragments of apparently human bone were discovered and no beads were recovered. (It should be noted that the original excavators of the site reportedly recovered thousands of such artifacts.)

CA-LAn-947: Field activities included documenting three boulders with mortars and cupules and a petroglyph boulder located in drainage below the painted rock panel, as well as surface survey of the area. Photographs and drawings of the petroglyph boulder, two boulders with mortars and another boulder with eight cupules were made; however, no surface artifacts were noted.

CA-LAn-953: This site is about 40 meters in diameter and is described as a lithic scatter and steatite processing center. Chert, quartz and rhyolite flakes were seen in the area by LSA, as was an incised sandstone fragment and a shaped schist slab with a single cupula. The site has been damaged by a dirt road and by illegal collecting activity (pot hunting). The "pot hunting" significance of CA-LAn-953 is unknown.

Field activities included surface collecting, site mapping, and excavating six 1 x 1 meter units and 27 auger holes. The field work resulted in collecting and mapping surface artifacts including many quartz flakes, ground stone fragments, and bone fragments and recovering artifacts from excavation units 1, 2, 3, and 5. The collection also includes several pieces of debitage and shatter.

CA-LAn-959: This site is an occupation area with obvious midden. A surface collection has been made at the site, with the collected material being curated at Antelope Valley College. Shell beads, steatite pendants, a shaft straightener and many chipped stone remained. One cupula boulder and a bedrock mortar are also found at the site. LSA found that the site had been damaged by recent backhoe work. The significance of the site is unknown. Though a collection has been made from the surface, no report on the work is available. The previous collections should be examined and incorporated into this effort.

Field activities included surface collection, site mapping, excavation of two 1 x 1 meter units, and documentation of five boulders with cupules. Surface artifacts were collected and mapped, including quartz, chalcedony, and jasper flakes, ground stone fragments and a shell bead. Unit 1 yielded many subsurface artifacts including a shell bead, a steatite arrow straighter, chalcedony, jasper, and quartz flakes, burnt bone, a chert point fragment, and one obsidian flake. Five cupule boulders were photographed and drawn, and a total of 24 cupules and 1 mortar were found among the boulders at this site.

CA-LAn-1035: One cupula boulder containing 16 pits and a bedrock mortar on a separate boulder are known from this site. The site is being damaged by grading for a dirt road, which has nearly buried the cupula boulder. No collection or excavation work is known to have been accomplished at the deposit.

Field activities included site mapping, photographs and drawings of five cupule and grinding boulders, excavation of eight auger holes, and intensive surface collection. A mortar, a possible mortar, and 25 cupules were documented among five boulders. However, only five

surface debitage pieces and one cupule on a piece of schist were found, and no subsurface midden was noted in the auger holes.

CA-LAn-1219 and 1220: A hunting blind constructed of slabs of schist is found at both locations. No artifacts are visible on the surface. The sites were in an excellent state of preservation when visited by LSA in 1989. The significance of the sites is unknown. It is recommended that the sites be subjected to test excavation.

CA-LAn-1279: Recorded by Wessel and Anderson in 1985, this site is complex. Numerous boulders (18 shown on sketch map) in the area contain cupolas and pecked figures. There are two groups of bedrock mortars. Worked steatite fragments are common in the site area and two rhyolite flakes, a quartz flake and a quartzite flake were observed. The site has been somewhat damaged by a mining prospect.

Field activities at this location included mapping and documenting cupule and mortar features within the site boundaries and sampling the steatite material. Photographs and drawings of cupule and mortar features on eight boulders were completed, and the steatite material was analyzed.

CA-LAn-1280: Also recorded by Wessel and Anderson in 1985, this site was described as a thin lithic scatter. Twenty-four flakes were observed, with chert, quartz, quartzite and rhyolite being the materials. An obsidian biface was noted and collected for hydration and sourcing studies. A quartz scraper, a quartz hammerstone and a quartz crystal were also seen in the site area. The recorders state that some milling equipment is present, but do not list such in the artifact section of the recording form. The area was characterized as "probably a habitation site". The significance of the site is unknown. It is recommended that the site be subjected to test excavation.

CA-LAn-1281: Wessel recorded this site in 1985. The site is complex, containing at least 10 cupula and groove boulders and a midden area with two earth ovens. One boulder contains bedrock mortars, and worked schist, hammerstones, flakes and some milling equipment were seen in the site area. The significance of the site is unknown. It is recommended that the site be subjected to test excavation.

CA-LAn-1335: Three bedrock mortars on three small boulders were found at this site. No loose artifacts were seen. The site is in an excellent state of preservation.

Excavation of auger holes, surface survey, and documentation of milling and cupule features were the field activities undertaken. Four boulders with mortar and cupule features were photographed and drawn, one surface artifact collected, and 19 auger holes excavated. No subsurface organic soil was found at this site.

CA-LAn-1383H: Recorded by Wessel in 1984 (though the site number sequence would indicate recording in 1985), this site is the remains of a Civilian Conservation Corps (CCC) camp. The CCC was active in the 1930's during the Great Depression. An improved spring, bottle fragments, wooden planks, concrete chunks and fencing materials were seen in the area. The primary significance of the site rests in knowledge of its location. It is not of sufficient age to have great significance, though it does add to historical knowledge of the Ritter Ranch area. The site does not require any further research.

CA-LAn-1627: A bedrock mortar and a rhyolite core are known from this site. Dense vegetation in the site area may obscure other surface artifacts. The site was recorded by LSA in 1989.

Field activities included surface survey, mapping the features, and excavation of auger holes and a 1 x 1 meter unit. Ten surface artifacts were collected. One auger hole that showed a shallow soil layer and one 1 x 1 meter unit that yielded two artifacts from the 0-10 centimeter level were excavated. No midden soil was noted. In addition, one bedrock mortar was recorded.

CA-LAn-1628: No surface artifacts were seen at this site, which consists of a single boulder containing four rather indistinct cupolas. The significance of the site is unknown. It is recommended that the site be subjected to test excavation.

CA-LAn-1629: This site was characterized as a hunting blind when it was recorded in 1989. It consists of a wall of schist slabs that partially encloses a natural rock overhang. Two other natural shelters are found in the same outcrop. The true nature of the site is unknown. It appears to be similar to other hunting blinds known in the area, but is quite near the old Ritter hunting club and may therefore be a historic construction. It should be noted that a similar structure in the vicinity of the project site has been interpreted as ceremonial in nature.

Field activities included surface survey, mapping the features, and excavating two 1 x 1 meter units within the blind. No surface prehistoric artifacts were noted and no subsurface

midden soil or artifacts were recovered within the "hunting blind". One possible historic resource, a tin can, was collected and photo documentation of the excavation and the rock wall of schist slabs was completed.

The metal oil kerosine can was found within the rockshelter recorded as CA-LAn-1629. No other historic materials were noted in the vicinity of the rockshelter. In order to determine the nature of historic use of the rockshelter, the can was collected for identification and dating.

The artifact analysis found that the manufacturing technology used for the kerosine can suggested probable manufacture before 1900 (Rock 1981:1). The origin of the can is unknown, but probably was left by either a ranch hand, hunter, or prospector near the turn of the century.

The site does not meet any of the *National Register* criteria, and no further recommendations are warranted.

CA-LAn-1630: A boulder containing 45 cupolas was found at this location. No loose artifacts were seen in the site area, but a historically improved spring is located nearby.

Field activities consisted of mapping and photographing the feature. The activities identified a single isolated boulder with 45 cupules on it, located on a steep slope within a drainage. One artifact was found in the surrounding area.

CA-LAn-1631: Two bedrock mortars were found on two boulders separated by some 60 meters by LSA in 1989. No other material was seen in the site area. It can be argued that these two features are separated by a sufficient distance to warrant recording as two separate sites, or at least as distinct loci within a site.

Field activities included surface survey, mapping the features, photographing and drawing the features. Photo documentation of the features located along this drainage found three boulders with mortars. No evidence of surface artifacts or midden soil was observed; however, dense vegetation around Features 1 and 2 prevented a complete survey of this area.

CA-LAn-1632: Four boulders covering a distance of 90 meters contain cupolas and bedrock mortars at this site. No loose artifacts were seen. Forty-nine cupolas were seen by LSA in 1989, but the number of mortars was not specified.

Field activities included surface survey, mapping the features, and excavation of auger holes. Photo documentation and drawings of the five features that include one boulder with 39 cupules was undertaken. A total of 54 cupules are present at this site. Surface artifacts were collected and 23 auger holes were excavated. No subsurface deposits were found in the auger holds.

Several historic artifacts were found in the vicinity of prehistoric site CA-LAn-1632, and collected for analysis. These included one horseshoe, two agricultural plow teeth, a ceramic plate fragment, and a coffee can. Dates of the types of horseshoe, coffee can, and plate represented could be refined no further than post-1880, although they appear to be much more recent in origin. All of these items appear to have been discarded by ranchers, perhaps while plowing areas or planting livestock forage in this foothill area.

CA-LAn-1633: Cupolas and two bedrock mortars were found at this site, located in a large outcrop. No loose artifacts were seen at the site. Five cupolas were found on a nearby boulder.

Field activities included surface survey, mapping the features, and excavating auger holes. Photo documentation and drawings were made of 13 features that include 116 mortar and cupule features on 17 boulders (one boulder, Feature 7, contains 52 cupules). Surface pieces of debitage around the features and several more debitage pieces from the ridge immediately northwest of the 13 features were collected. Artifacts were found on the ridge, including one projectile point. Four auger holes were excavated across the ridgeline; however, no subsurface midden soil was found.

CA-LAn-1634: This site has three boulders that contain a combination of cupolas and bedrock mortars. An unusual feature of the site is that the bedrock tools are widely variant in size, grading into each other. Ten pits can be seen, but all are not easily classified as either mortars or cupolas, though some do clearly fall into those categories. The significance of CA-LAn-1634 is unknown. It is recommended that a test excavation be completed.

CA-LAn-1635: Six boulders containing cupolas and bedrock mortars are known from this site. A grooved boulder and a schist slab metate were also noted. The prehistoric nature of the grooved rock is somewhat in question, given its pristine appearance. The groove may be a historic feature.

Field activities included surface survey, mapping the features, and excavation of auger holes. Photo documentation and drawings were made of nine features that include 87 cupules over 13 boulders. Several surface artifacts were found, including one projectile point. Twenty-seven auger holes that indicated no evidence of subsurface midden soil were excavated.

Within the boundary of prehistoric site CA-LAn-1635 several historic artifacts were found. These included one tin can and a cast iron plow disc. Only the can was collected for further analysis. It was identified as a modern "sanitary" food or beverage can, dating from the 20th century.

Like site CA-LAn-1632, the few historic artifacts found here probably represent the activities of ranchers. The plow disc is suggestive of past efforts to cultivate livestock feed in this foothill area.

The historic component of site CA-LAn-1635 does not meet any of the *National Register* criteria for significance, and no mitigation measures are recommended for the historic component.

CA-LAn-1636: Sixty-five cupolas in linear groupings are found on a single boulder at this site. No loose artifacts are apparent. The significance of CA-LAn-1636 is not known. A test excavation should be completed.

CA-LAn-1637: This site consists of two grinding slicks on two separate boulders. A cupula (possibly a bedrock mortar) is located adjacent to one of the slicks. The site is quite near the recorded location for CA-LAn-917 (see above discussion). As recorded, the sites are quite dissimilar, thus there is no confusion regarding identification.

Surface survey and mapping of the features was conducted. No surface artifacts were found; however, three boulders with features were found in the drainage. A site map was also completed.

CA-LAn-1638H: A foundation and a trash scatter associated with a probable ranch hand's residence are found at this location. Apparently the deposit does not extend below the surface, and the visible remains have little integrity. It is recommended that interviews with older local people be conducted in an attempt to determine the function and age of this site. The site itself requires no further research.

CA-LAn-1639H: This dugout meat smoking facility was erected in the 1920's, according to oral history from Ralph Ritter. The feature is constructed of native stone, brick, railroad ties and sheet metal. A sparse scatter of older trash is located outside the structure. The structure is associated with CA-LAn-1642H, a nearby ranch and barn that was recently occupied.

This complex of buildings and the house of the Hunter family were carefully inspected. The field review provided further documentation of the structures and their integrity. Photographs were taken of the major structures of this site.

Refer to CA-LAn-1642 below for additional data.

CA-LAn-1640: No artifacts were detected at this deposit, which consists of an obvious midden.

A survey of the suspected site area was conducted. Several boulders in the immediate area and the road cut area were inspected for midden soil. The survey results suggested that all indicators were the result of eroding schist boulders and surrounding soils. No artifacts or pecked boulders were found within the site area.

CA-LAn-1641H: Several ruined ranch buildings and trash scatters were noted in this area by LSA in 1989. No evaluation of the site was made, however.

A field review of this site was conducted, which included photo documentation and detail recording of the features. Debris piles were inspected; no historic trash was noted.

CA-LAn-1641H is the ruins of a livestock ranch near the southwest corner of Anaverde Valley. Old maps of the area depict standing structures at this location in 1917, and perhaps as early as 1902 (USGS 1917, US Surveyor General's Office 1902). This site consists of piles of lumber and other debris that appeared to represent collapsed buildings. This phase

of investigation recorded the site in greater detail and determined the historic archaeological potential of the site.

Close inspection of the site revealed that it was highly disturbed, lacked integrity, and did not contain significant historic archaeological deposits. The debris piles originally recorded were found to have been created by bulldozing rather than by the collapse of *in-situ* structures. According to information provided by Ralph Ritter, the ranch house which formerly occupied this site burned down many years ago.

Even without architectural integrity, the site could have possessed potential historic significance if discrete trash deposits existed which could provide data about early Euro-American ranch life and material culture in the Antelope Valley, especially in light of the paucity of written historical documentation for this region. However, an intensive pedestrian survey of the site failed to find any trash deposits with research value. Therefore, the site does not have either the physical integrity or information potential necessary to meet the *National Register* criteria for significance. No further investigation and no mitigation measures are recommended for CA-LAn-1641H.

CA-LAn-1642H: is a historic ranch in the southwest corner of Anaverde Valley, comprised of a house and barn as well as a number of outbuildings and features (water tanks and retaining walls). CA-LAn-1639H is a dugout meat locker located in a canyon about one-half mile southwest of CA-LAn-1642H. Both are remnants of the same historic land use, and were considered together for this phase of the investigation.

Recommendations made in the Phase 1 Cultural Resources Assessment for CA-LAn-1642H/CA-LAn-1639H called for further archival and oral history research of the ranch's history and place within a historic context, as well as further documentation by mapping and photography.

The additional research included a review of literature and maps at the library and Geography Map Library of California State University, Northridge. This archival research focused on the history and importance of livestock ranching in the Antelope Valley. Mr. Ralph Ritter, former owner of the property, was interviewed over the telephone to obtain facts about the ranch, which was part of the large land holdings acquired by the Ritter family beginning in the 1880's.

Based upon information provided by Ralph Ritter, the ranch house was originally built around the turn of the century by H.W. Hunter. No further information was found about H.W. Hunter or the Hunter family name in the historical record of the Anaverde-Leona Valley area.

Another field visit was made in order to inspect and graphically document the main complex of the ranch (CA-LAn-1642H). The ranch buildings were inspected to 1) determine the approximate date of construction; and 2) assess their architectural integrity. A sketch map was prepared, which included all of the buildings and features forming the main complex or headquarters of the ranch. The sketch map will be added to the Archaeological Site Record for CA-LAn-1642H.

The field inspection verified that the ranch house had been modified from its original configuration by the addition of a cross-gabled bathroom and by the enclosure of the front porch. These modifications appeared to date to the 1930's. Probably at the same time, the structure was re-sided with fire resistant asbestos shingles. The modifications reflect efforts to enhance the comfort and security of the ranch inhabitants, and are typical of changes made to vernacular rural dwellings.

The archival research and field documentation provided the additional data needed for the preparation of a standard Historic Resource Inventory form with supplemental photographs. The completed form and photo-documentation will serve as a permanent record of the ranch. Another copy of this form will be forwarded to the State Historic Preservation Office for inclusion in the statewide Historic Resources Inventory.

Since the exact construction date of the ranch buildings was not known, old maps of the area were examined to find when symbolic representations of buildings appeared in the location of CA-LAn-1642H. The earliest dated map which depicts the Hunter ranch house is the 1917 USGS *Elizabeth Lake* quadrangle.

The results of the archival review suggested that cattle ranching was, in addition to agriculture, one of the major economic activities pursued by homesteaders in the western Antelope Valley (Norris 1982:298-299), beginning as early as the 1870's. Another source described the period of florescence of cattle ranching in the Valley, between 1880 and 1910 (Settle 1963:62). However, like in many other marginal arid regions, livestock husbandry in the Anaverde Valley area was relatively insignificant in terms of national or statewide livestock production or as a force of regional development. As a marginal economic activity,

such problems as periodic prolonged drought caused the abandonment of many ranches over the years. Even as far back as 1911, one observer noted an abundance of long-deserted ranch houses in the Antelope Valley (Johnson 1911:8). Since cattle ranching in the Antelope Valley is not a historically significant theme or context, the ranch complex cannot be considered to meet any of the *National Register of Historic Places* criteria for significance. Nevertheless, the ranch represents a vestige of the pastoral heritage of the western Antelope Valley, and recordation beyond the level achieved during the inventory phase of the investigation is warranted. This was achieved by preparation of a Historic Resources Inventory form. No further mitigation measures are recommended for CA-LAn-1642H/CA-LAn-1639H.

CA-LAn-1643: This site consists of four rock lined pits, each about two meters in diameter and 50 centimeters deep. The rocks do not appear to be thermally modified. The function of the pits is unknown. It is not known whether the features are historic or prehistoric. The significance of CA-LAn-1643 is unknown. A test excavation should be completed.

CA-LAn-1644H: A representative sample from the trash deposit was recovered and the area was photographed and mapped. Historic resources found appear to date from 1930-1960 and are a mixture of domestic, automotive and ranching refuse.

This site is a deposit of historic refuse located in an erosional gully on the north side of Amargosa Creek in Leona Valley. The objective of this phase of the investigation was to retrieve a representative sample of the material comprising the deposit, in order to determine its time span and functional origin.

The sampling strategy involved three tasks 1) detailed mapping of the deposit to note evidence of depositional and erosional processes; 2) inventory of the range of materials included in the deposit; and 3) collection of diagnostic artifacts for temporal and functional analysis. The materials retrieved included bottles, cans, ceramics, barbed wire, and miscellaneous items which were capable of yielding meaningful data. These artifacts were removed to the laboratory, where they were cleaned, sorted, identified, described, and catalogued.

The laboratory analysis revealed that the time span of the deposit ranged from approximately 1930-1960, and appeared to represent a mixture of domestic, automotive, and ranching refuse. The domestic materials included food containers of glass and metal, ceramic crockery and tableware, cooking vessels, and medicinal containers. The automotive

materials included numerous motor oil cans and the door of a ca. 1920's-1930's automobile or truck. The ranching materials were limited to several varieties of barbed wire and hog wire. Other materials, such as lantern parts and barrel hoops, may be associated with either domestic or ranching activities.

This site does not meet the significance criteria of the *National Register of Historic Places*. The deposit is not old enough and its association with a particular historic property remains unknown. It therefore is concluded that the research value of the trash deposit is negligible, and that the sample recovered is sufficient. No further research is warranted and no mitigation measures will be required.

CA-LAn-1645: A scatter of obsidian, chert, rhyolite and quartz flakes was found at this location.

During field work, an attempt was made to find the site area. The site area was scraped and its ground surface was disturbed by recent leveling; no artifacts or midden soil were noted in the backdirt piles or in the cut area.

CA-LAn-1626H: This site is the Ritter hunting club, discussed earlier in this report. The site is not of sufficient age to be of historic interest. No further research is required or recommended.

CA-Ln-1953H: The site area was mapped, the site features were drawn, and the mining claims were collected. The site was revisited by the historian. Archival research was conducted to provide information on the mining claims.

This site is an historic mining claim located in Section 29, Township 6 North, Range 13 West, on the west side of a northward descending ridge of Mt. McDill, on the east side of Maple Canyon. The site consisted of a rock cairn containing a metal tobacco can with a mining claim form stuffed inside, as well as two shallow prospect pits and several small tailings piles.

The site was mapped and recorded on a standard Archaeological Site Record. The tobacco can containing the mining claim form was collected for further analysis. The claim form, which was in a poor state of preservation, revealed that the claim was made on July 19, 1929. The handwritten names of two claimants were illegible; one appeared to read "[G]ilbert R. W..."; while the other read "...C Ho...". The claim form declares it to be a

"quartz lode claim", but it appears that the type of mineral sought was asbestos. Another mining claim located nearby (RR-29) is an asbestos claim, and the rocks in the tailings piles were fibrous in nature. A sample of rock collected from one tailings pile was positively identified as tremolite asbestos (Dr. Stephen L. Williams, *Personal Communication*, 11/90).

Historical research was conducted at the University of California, Los Angeles, Geology Library to determine if the site was listed or discussed in the pertinent annual Report of the State Mineralogist, and to ascertain how widespread and significant mining was in this area. No specific information was found to supplement the archaeological evidence. According to *Mines and Mineral Deposits of Los Angeles County, California* (Gay and Hoffman 1954:503), the only asbestos mining locality ever recorded within the County was the Fiber Queen Mine in the Western San Gabriel Mountains, about four air miles northwest of San Fernando (Township 3 North, Range 15 West, Section 16). The original claimant of the Fiber Queen was Herman Mangold, of Olive View. Interestingly, the Fiber Queen asbestos mine began production in 1929, around the same time that the claims were recorded at CA-LAn-1953H and RR-29H.

Since the claim does not represent a significant land use in the vicinity, and because it was never developed into a productive mine, the site cannot meet any of the *National Register* criteria for historical significance. The site has been adequately investigated and documented, and not additional research or mitigation measures are necessary.

CA-LAn-1954: This is a prehistoric site with bedrock mortars, as well as a functioning windmill, a kettle, and related items.

Field activities at this newly recorded site consisted of surface survey, mapping the features, and excavating auger holes. Features were photo documented, and surface collection recovered several artifacts. Excavation of 19 auger holes, however, indicated no buried midden soil.

CA-LAn-1955H: The field work at this site included surface survey, mapping of features, and visual inspection of the potential historic foundation. A sample of the potential historic artifacts was collected and no discrete trash deposits were noted.

CA-LAn-1955H is the ruin of a small vernacular dwelling located in the southwestern corner of Anaverde Valley, on a level spot on a hillside in the unnamed canyon just east of the Hunter Ranch headquarters (CA-LAn-1642H). The site is comprised of a small concrete

foundation (3.77 meters x 5.52 meters), with a standing north fireplace wall of mortared native rock and firebrick. A sparse scatter of historic debris is found on the east and north sides of the structure. The building appeared to have burned down, as evidenced by surrounding charred vegetation. The structure was accessed by an unpaved and now overgrown road which ascends the canyon and hillside.

Several potentially diagnostic historic artifacts were collected from the site for dating. These included a branded firebrick, a medicine bottle, and a ceramic plate shard. Analysis of these items suggested a date of occupation in the 1920's to early 1930's. This date range was further confirmed by Ralph Ritter, who stated that Hank Hunter Jr. of the Hunter Ranch family built the house in the canyon in the 1920's. Another piece of evidence linking this ruined dwelling to the Hunter Ranch is the use of firebricks bearing the brand of the St. Louis Fire Brick and Clay Company (Gurcke 1987:302). These bricks are identical to those used in the construction of the Hunter Ranch dugout meat locker (CA-LAn-1639H), located in another canyon west of the ranch house.

Because the site lacks integrity, it does not meet any significance criteria of the *National Register*. These photographs and site record will serve as adequate documentation of the site. Sufficient information was obtained to document its history, and no further research or mitigation measures are recommended.

CA-LAn-1956: This is a extensive group of 12 boulders with a total of 71 cupolas. Surface survey, mapping the features, and excavation of a feature (#13) were the field activities undertaken at CA-LAn-1956. A cross section excavation of Feature #13 collected possible pollen and seed sample for analysis. Photo documentation and drawings of 12 cupule features that include 73 cupules was the primary documentation effort at this site.

CA-LAn-1957: This site is a large outcrop with 11 cupolas and a possible bedrock mortar. Surface survey, mapping the features, photographs and drawings of the features were completed. The documentation identified that the single boulder had eleven cupules and one mortar. No artifacts were noted surrounding the boulder, probably because it is located on a steep slope.

CA-LAn-1958: Field activities included surface survey, mapping the features, and excavation of auger holes. Nine features that include 40 cupules and three possible rock ring features were recorded. Surface collection recovered several artifacts. However, excavation of six auger holes indicated no subsurface midden soil.

CA-LAn-1959: Field activities included surface survey, mapping the features, photographing and drawing the features. Photo documentation and drawing of the single boulder recorded a single cupule. Three artifacts were collected from the surface.

CA-LAn-1960: Surface survey, mapping the surface collection, and excavating auger holes was undertaken. Thirty-four artifacts were found on the surface. Four auger holes indicated there was no organic soil across the site area or subsurface deposits.

CA-LAn-1961/H: Field activities included surface survey, mapping the features, and excavation of auger holes. Eight features were photo documented and drawn. These include seven cupule boulders and one possible rock cairn, a total of 49 cupules among nine boulders. Feature #3, a cupule boulder, appears to have been moved from its original location. The excavation of six auger holes indicated that no subsurface midden soil was present. Surface collection recovered approximately 54 historic artifacts.

An historic component was recorded as part of CA-LAn-1961/H. This component was comprised of a scatter of historic materials, including fragments of glass, ceramics, metal, and wire, as well as cans and miscellaneous items including a horseshoe and lamp parts.

A surface collection was made of historic artifacts from CA-LAn-1961/H. The large sample, which was retrieved for laboratory analysis, included a wide range of representative materials. These items were cleaned, sorted, identified, and catalogued. The analysis also attempted to determine dates of manufacture for as many artifacts as possible, in order to ascertain the probable time or time span of occupation of the site. Study of the collection also was intended to determine the type(s) of activity(ies) represented by the deposit. The analysis revealed that the probable time span of the deposit was ca. 1880-1966. The earliest possible date is inferred from the presence of sunlight-colored glass, a type of glass composition manufactured between 1880 and 1917 (Munsey 1970). The deposit contains items, particularly bottle fragments, which are datable to various times through the 20th century. Thus, it appears that the site saw repeated or episodic use over the span of the last 90 years.

The analysis also showed that the main class of artifact in the collection were beverage or food containers. The remaining artifacts included tableware, farming/ranching items, and miscellaneous utility items which could have multiple purposes. Since no archival, cartographic, or archaeological evidence was found of a structure or homestead in the site

vicinity, it appears most likely that CA-LAn-1961/H represents an intermittently occupied cattle ranching activity area.

The historic component of CA-LAn-1961/H was strictly a surface manifestation. The surface collection and artifact analysis provided sufficient data to assess the significance of the site. The historic component of CA-LAn-1961/H does not meet any of the *National Register* criteria for significance, and no further work and no mitigation measures are recommended.

RR-1: A rhyolite fragment of a biface was found at this location. No wear was evident on the tool. The artifact is not significant, since it cannot be associated with any other archaeological material and is not, of itself, diagnostic. No further research is required or recommended.

RR-3: A white quartz flake was found at this location. The artifact is not significant, since it cannot be associated with any other archaeological material and is not, of itself, diagnostic. No further research is required or recommended.

RR-5: A heavily worn, bifacial granite mano was found at this location. The artifact is not significant, since it cannot be associated with any other archaeological material and is not, of itself, diagnostic. No further research is required or recommended.

RR-8: A tan chert secondary flake was found at this location. The artifact is not significant, since it cannot be associated with any other archaeological material and is not, of itself, diagnostic. No further research is required or recommended.

RR-11: A fragment of red and white chert debitage was found at this location. The artifact is not significant, since it cannot be associated with any other archaeological material and is not, of itself, diagnostic. No further research is required or recommended.

RR-16: This isolate consists of a rhyolite projectile point tip fragment. Diagnostic features of the artifact are not preserved. The artifact is not significant, since it cannot be associated with any other archaeological material and is not, of itself, diagnostic. No further research is required or recommended.

RR-24: This isolate was a translucent, black obsidian flake. The artifact is not significant, since it cannot be associated with any other archaeological material and is not, of itself, diagnostic. No further research is required or recommended.

RR-29H: This is an isolated pocket tobacco can containing a mining claim form that was found on the same ridge containing another historic mining claim, CA-LAn-1953H. The tobacco can was not found within a cairn, and was judged to have been disturbed from its original location by recent bulldozing of a jeep road on the ridge top. However, it can be assumed that the claim was in the general vicinity of where the tobacco can was found, and probably was originally placed within a rock cairn.

The tobacco can and claim form were collected for further analysis. The claim form was in a poor state of preservation, but some handwritten information was legible. The claim was described as a "talcasbestos lode", and bore the date of February 20, 1928. The locators were listed as "Frank Molot" and "...Laken [?]".

Research conducted at UCLA Geology Library failed to provide further information about the claim or claimants. As described above in the section on RR-28H, no recognized asbestos mining localities were officially reported by the State Division of Mines and Mining in its annual reports for the late 1920's and early 1930's. Additionally, asbestos was a very minor economic mineral in Los Angeles County.

Since the claim does not represent a significant historic land use in the vicinity, and because it was never developed into a productive mine, the site cannot meet any of the *National Register* criteria for historical significance. The site has been adequately investigated and documented, and no additional research or mitigation measures are necessary.

RR-30H: This is an isolated rock cairn.

RR-31H: This is an isolated tin can.

RR-32H: This is an isolated rock hearth.

RR-34H: This is another historic mining claim, located in Section 26, Township 6 North, Range 13 West. The site consists of a stacked rock cairn in which was placed a medium sized food can. Although the can was empty when found, it probably had been used as a receptacle for a mining claim.

The can dates to post-1900, based on the manufacturing technology used in its construction. The type of mineral being sought may have been either gold or manganese, since quartz outcrops are abundant in the area. A review of the annual reports of the California Division of Mines and Geology (formerly called the California Mining Bureau and the State Division of Mines and Mining) for Los Angeles County failed to reveal the identity of the claim. However, a number of manganese claims and prospects dating from World War I are recorded in the general area of Ritter Ridge and Anaverde Valley (Gay and Hoffman 1954:503, 638-639). Manganese is a mineral of great importance in metallurgy, primarily as an alloy for steel making (Davis and Hewett 1966:243).

Since this claim was not identifiable, and because no mine was developed, the site does not represent a significant historic land use. Therefore, it fails to meet any of the *National Register* criteria, and no additional research or mitigation measures are recommended.

RR-36H: This is an isolated rock cairn.

RR-37H: This is an isolated rock cairn.

RR-38: This is an isolated bedrock mortar.

RR-41: This is an isolated quartzite flake.

Prehistoric Site Evaluations

The major objective of the Ritter Ranch research was the location, identification and evaluation of archaeological resources within the project area. The project area is environmentally diverse combining the floral communities of the southern California Transverse Range with the large, arid Mojave Desert. There was ready access to many life zones and numerous drainages dissected the landscape. Many varied subsistence opportunities were provided for hunter-gatherers. Vertical zone contraction, where the plant communities change in a short distance because altitude increases, offered a wide plant and animal resource base at Ritter Ranch. Numerous sites were found because many resources are available within relatively short distances.

The regional archaeological record suggests an intense, complex village lifestyle from the first millennium B.C. onward. Population numbers only dwindled immediately before Spanish contact when the Antelope Valley was sparsely inhabited. Thus, a major research

problem for all regional archaeologists is understanding why the settlement and subsistence pattern changed so dramatically.

The research questions focused first on discovering how numerous and diverse the Ritter Ranch archaeological resources were, and whether further research would be warranted. The environmental and subsistence data provided by the resources was then examined. Finally an effort was made to identify the settlement types and assess their relationship to the Antelope Valley's intensified village lifestyle. Specific research questions included:

What is the environmental context of the site?

What is the temporal/cultural affiliation of the site?

What tool uses and site activities can be documented?

Was stone tool manufacture present?

Is the site a single or multiple activity area, and a temporary or semi-permanent settlement?

Is there evidence for trade with the Pacific Coast and/or the inland areas?

During survey and site evaluation we rapidly discovered that much of the project area contained no prehistoric sites. Major midden and artifact remains were primarily confined to the Leona Valley. Here access to two communities, the desert riparian and the mixed sagebrush, yucca, and Joshua tree, was present. Nearby, the eastern slopes were covered with pinon and juniper. We found food extraction and processing areas within the dense chaparral or along drainages supporting scrub oak, willow and associated chaparral vegetation. The grasslands area had few sites except near drainages or where rock outcrops provided tool material.

The artifacts recovered during our research provide the best indications for temporal/cultural affiliations. With one exception (Elko style point) all artifact styles are relatively late. Cottonwood points, shell beads, fused shale and steatite generally indicate the Shoshonean or Late Prehistoric Period in the western Mojave Desert.

These late sites seem to represent several functions. Two sites, CA-LAn-953 and CA-LAn-959, and possibly a third site CA-LAn-1633, have diverse tool kits documenting, potentially, hunting and butchering as well as plant food processing activities. Additionally stone tool and steatite ornament manufacture was occurring. The first two sites have distinct midden soils and produced burnt and butchered fauna. Other sites document more limited functions. Sites having bedrock mortars, small tool and debitage quantities and no midden

apparently were temporary, several night, camps. There are also locations where food was processed in bedrock mortars, and quartz, schist or steatite was quarried. Finally numerous rock art, including pictographs and cupules, locations were found.

As Pelona schist and steatite outcropped within the project area, an investigation as to how these resources were used was conducted. Very limited quarry evidence and some manufacturing occurring at camps or villages was found. There was also substantial evidence for quarrying and reducing the local quartz and black quartzite. Hammerstones, primary reduction and final shaping flakes abound. Less common, however, was evidence for final shaping of non-local material. Reworking, tool retouching and reuse, was also observed.

When combining the environmental, tool use and site activities data, it appears at least three general site types exist. There are habitations sites, temporary camps and minimal and ritual activity areas (locations). These site types conform, almost too comfortably, to Binford's (1980) hunter and gatherer site type model. Definitely, testing this model during regional research would be appropriate.

Trade evidence was present among the Ritter Ranch sites although it did not seem to be significant. Small quantities of shell beads were found at CA-LAn-959. Obsidian and fused shell were also identified. All steatite appeared to be local and no other clearly imported material was identified. The obsidian and fused shale were found as tools and debitage, suggesting local working and consumption rather than middle man exchange. The shell also appeared to have been used locally. Therefore, only down-the-line trade, rather than middle man redistribution, is supported by the artifact evidence.

Summarizing the prehistoric land use evidence, apparently modest villages were located along major drainages like Amargosa Creek. These residential bases were sheltered from prevailing winds, had water and could easily reach numerous plant resources. From these camps, plant foods could be gathered and game hunted in the surrounding Sierra Pelona region. Our site distribution data suggests people accessed the mountainous terrain by traveling the ephemeral drainages. They followed game which also used these natural corridors, and along the drainages they established processing camps and practiced ritual activities. The land use pattern apparently reflects the Late Prehistoric or Shoshonean period and there is little evidence for earlier occupations.

Paleontological Resources

The study area is underlain by metamorphic, igneous and sedimentary rocks. A diorite/gneiss complex and the Pelona and Portal Schists are the igneous and metamorphic rock units. The sedimentary units are the Anaverde Formation, the Harold Formation, the Ritter Formation, the Nadeau Gravel, older alluvium and Holocene (recent) alluvium. A thin soil layer partially covers the older geologic units. Igneous rocks are formed from molten material cooling slowly within the earth's crust. Metamorphic rocks result from the heat and/or pressure alteration of previously existing rocks. The meta-igneous and metasedimentary rocks are igneous and sedimentary units that were partially altered by heat and/or pressure to metamorphic rocks. The following is a brief description of geologic formations present on the project site.

Anaverde Formation (Ta): The Anaverde Formation is a sedimentary unit named by Wallace (1949) for exposures in the Anaverde Valley. The age of the Anaverde Formation is not well understood, but is approximately late Miocene to early Pliocene Epochs (approximately eight to five million years before present). Similar sediments southwest of Palmdale contain paleosols which have a high potential for containing vertebrate fossil remains (Reynolds, written communication 1989).

Ritter Formation (TOr): The Ritter Formation is a white to dark grey arkosic sandstone and siltstone unit that was once mapped as part of the Anaverde Formation (Wallace, 1949; Dibblee, 1961; Evans, 1986). To date, no fossils have been found in the Ritter Formation, but this may be more a consequence of relatively few exposures and a lack of detailed study than a true lack of fossil material. The age of the Ritter Formation is tentatively set as Pliocene and/or Pleistocene.

Harold Formation (Oh): The Harold Formation is a sedimentary unit laid down in low gradient streams, lakes, playas and alluvial fans that once existed in this area during the Pleistocene. South of Palmdale, the Harold Formation has yielded a diverse and scientifically significant vertebrate fauna. The Los Angeles County Museum, San Bernardino County Museum, University of California, Riverside and the California Institute of Technology all have fossil localities recorded in this formation. Recent paleontological resource assessment work south of Palmdale has located additional fossil localities (Govean, 1989). Some of the animals represented are:

<i>Mammuthus</i> sp.	Mammoth
<i>Mammut</i> s.	Mastodon
<i>Camelops</i> sp.	camel
<i>Equus</i> sp.	horse
<i>Sylvilagus</i>	cottontail rabbit
<i>Neotoma</i> (<i>Teanopus</i>) " <i>prefuscipes</i> "	pack rat
<i>Microtus californicus</i>	meadow mouse

Woodburne (1975) assigned the Harold Formation a Rancholabrean age (600,000 to 10,000 B.P.). A single fossil bone scrap was observed on the study parcel in sediments variously assigned to the Harold Formation by Kahle (1975) and to older alluvium by Barrows et al. (1985). It is likely that fossils would be exposed by grading activities in the Harold Formation in the project area.

Nadeau Gravel (Qn): Overlying the predominantly fine-grained Harold Formation is the Nadeau Gravel. This poorly consolidated cobble/boulder gravel was laid down under fast flowing (high energy) stream conditions. Fossils have not been recovered from this unit probably, in part, because of the large sized material chunks found in the unit and, in part, due to lack of extensive excavation efforts.

Older Alluvium (Qop1): The older alluvium designated Qop1 is primarily a fluvial mud, gravel and silt deposit containing distinctive Pelona Schist cobbles. The age of these deposits is tentatively set at late Pleistocene (approximately 160,000 to 10,000 B.P.). No fossils are currently known from this unit. However, fine-grained sediments of similar age have produced vertebrate fossils in the Palmdale area (Reynolds, written communication, 1989).

Older Colluvium with Metamorphic Debris (Qcm): These sediments are deposits of slopewash containing cobbles and boulders of Pelona Schist in a sandy matrix. These deposits are tentatively assigned a late Pleistocene age. No fossils have been collected from these deposits.

Diorite and Gneiss Complex (Dgn): These rocks are a complex of rocks older than Cretaceous (greater than 144 million years B.P.). The diorite and gneiss complex would not be likely to contain fossils because of the molten origins of the igneous rock and the metamorphic alteration of the sedimentary rocks.

Pelona Schist (Pls): The Pelona Schist is metamorphic rock unit that underlies a large part of the study area. This unit lies south of the San Andreas Fault and primarily is a light to dark gray in color. A metamorphic origin for this unit (i.e., the alteration of a previously existing rock body by heat and pressure) precludes any great likelihood of fossils being present. On occasion, interbeds of sedimentary rocks can be less affected by heat and pressure, and thus contain identifiable fossils. However, these are rare circumstances.

Portal Schist (Pos): The Portal Schist is located on the study parcel north of the San Andreas Fault. The metamorphic origins of this unit make it highly unlikely that any identifiable fossils could be present.

IMPACTS

Archaeological/Historical Resources

The Phase II investigation assessed the potential research value of 23 prehistoric sites identified during the survey in order to develop a more complete preservation/mitigation plan for the Ritter Ranch project area. These sites included the previously recorded sites CA-LAn-947, -953, -959, -1035, -1279, and -1335, and the several sites identified during the recent survey, CA-LAn-1627, -1629, -1630, -1631, -1632, -1633, -1635, -1637, -1640, -1645, -1954, -1956, -1957, -1958, -1959, -1960, and -1961/H. The program of mapping and collecting surface artifacts, detailed drawings and photographs of the features, and hand excavated units and auger holes at these sites provided the steps to assess their research value. The subsurface investigation determined whether or not a subsurface component exists, the integrity of that deposit and its subsurface vertical extent.

As anticipated, most of the subsurface investigations conducted produced no evidence of subsurface components for the limited activity sites such as the bedrock milling stations, cupule boulder sites, and temporary camps (sites CA-LAn-1035, -1279, -1335, -1627, -1632, -1633, -1635, -1954, -1956, -1958, -1960, and -1961/H). The remaining limited activity sites, CA-LAn-1630, -1631, -1637, -1957, and -1959, also yielded few surface artifacts and no visible midden soils.

Intensive investigations and field checks at four other sites also produced negative results. Reinvestigation at CA-LAn-1640 found the suspected prehistoric midden to be the result of eroding schist boulders and surrounding soils. Three sites, CA-LAn-1628, -1634 and -1645, had been recently disturbed by scraping and bulldozing, which destroyed the surface integrity

of these sites. Inspection of the cut areas and backdirt piles produced no evidence of prehistoric midden or subsurface artifacts. The excavation units placed within the hunting blind, CA-LAN-1629, located under the natural rock overhang also yielded no subsurface prehistoric deposits.

Therefore, based upon the lack of subsurface deposits and limited surface artifacts, and the limited information that can be obtained from further study at these sites, the Phase II program is considered sufficient for the mitigation of direct and indirect impacts to most of the recorded sites within Ritter Ranch.

If archaeological site CA-LAN-947 can not be avoided by development and left within open space, then a mitigation plan to reduce the adverse effects of the loss of the site would be needed. Due to the potential significance of this rock art site, mitigation of the adverse effects to an insignificant level may not be possible.

Table 25, ARCHAEOLOGICAL/HISTORICAL SITES summarizes the archaeological and historical sites by proposed land uses, and provides the current recommendation for each site. Isolated artifacts have not been listed, since their potential to yield important scientific information has been exhausted.

Dense vegetation and steep slopes prevented an intensive survey for the higher elevations of Ritter Ranch. If developed, these sections of the property should be re-surveyed when the brush has been removed and prior to any grading. Archaeological monitoring will be needed during the brush clearing and grading for the development throughout the property. The archaeologically sensitive areas include along Amargosa Creek and along the unnamed tributary to Anaverde Creek.

The project will increase the exposure of the local sites to increased hazards of secondary impacts caused by a larger local population. An increased population near a site will expose that site to greater foot and equestrian traffic which would subject the site to increased vandalism, illegal collecting and unintentional damage. In addition, more people in an area will increase the water run off which may increase erosion of downstream prehistoric deposits.

Table 25

ARCHAEOLOGICAL/HISTORICAL SITES

Site	Planning Land Use	Site Condition Recommendation
AVC-163	Offsite	
CA-LAn-405	Urban Residential	None
CA-LAn-947	Urban	Preservation
CA-LAn-953	Commercial	Data Recovery
CA-LAn-959	Commercial	Data Recovery
CA-LAn-1035	Urban	Monitor
CA-LAn-1219	Open Space	None
CA-LAn-1220	Open Space	None
CA-LAn-1279	Open Space	None
CA-LAn-1280	Open Space	None
CA-LAn-1335	Open Space	Monitor
CA-LAn-1626H	Open Space	None
CA-LAn-1645	Urban	Destroyed
CA-LAn-1644H	Open Space	None
CA-LAn-1643	Open Space	None
CA-LAn-1642H	Urban	None
CA-LAn-1641H	Urban	None
CA-LAn-1640	Open Space	None
CA-LAn-1639H	Urban	None
CA-LAn-1638H	Urban	None
CA-LAn-1637H	Urban	None
CA-LAn-1636	Open Space	Monitor

Table 25 (Continued)

ARCHAEOLOGICAL/HISTORICAL SITES

Site	Planning Land Use	Site Condition Recommendation
CA-LAn-1635	Urban	Monitor
CA-LAn-1634	Urban	Destroyed
CA-LAn-1633	Urban	Monitor
CA-LAn-1632	Urban	Monitor
CA-LAn-1631	Urban	Monitor
CA-LAn-1630	Urban	Monitor
CA-LAn-1629	Open Space	None
CA-LAn-1628	Urban	Destroyed
CA-LAn-1627	Open Space	Monitor
CA-LAn-1953H	Open Space	Monitor
CA-LAn-1954	Open Space	Monitor
CA-LAn-1955H	Urban	None
CA-LAn-1956	Open Space	Monitor
CA-LAn-1957	Open Space	Monitor
CA-LAn-1958	Urban	Monitor
CA-LAn-1960	Open Space	None
CA-LAn-1961/H	Urban	Monitor

Several of the recorded sites have midden deposits, indicating they were extensively used, but the significance is unknown. Significance rests partly on the degree of internal preservation, as well as on artifact content, age and other factors. Significance can only be determined through careful test excavation and analysis.

Large portions of the central and southern Ritter Ranch area have not been examined for cultural resources because these areas are somewhat steeper than the balance of the project site. These unexplored areas will be examined prior to the beginning of development in order to determine potential impacts.

Development of locations containing unexcavated archeological/historical sites will disrupt or destroy the sites rendering them useless as cultural resources. Significant sites that could potentially be destroyed or disrupted by implementation of the proposed Project will be salvaged and/or protected prior to development of that location. Therefore, the proposed Project is not anticipated to have a significant impact upon archeological or historical resources on the Project site.

Paleontological Resources

Development of residential, commercial and recreational land uses upon areas containing paleontological resources will result in disturbance of these resources. Grading necessary for construction has the potential to disrupt and/or destroy valuable fossils. In addition, areas not subjected to grading may suffer indirect impacts due to increased human presence. The areas with the greatest potential for significant impacts are those with higher paleontological sensitivity ratings.

Paleontological Sensitivity Rating

The Project area is underlain by geologic units with widely differing potentials for containing paleontological resources. To reflect these potentials, a rating system of five categories of paleontological sensitivities has been developed. A NO Paleontologic Sensitivity is reserved for igneous rocks whose molten origins preclude the likelihood of containing fossil remains. LOW Paleontologic Sensitivity describes geologic units which have little likelihood of containing paleontologic resources. A MODERATE Sensitivity suggests that fossils may be encountered during development. A HIGH Paleontologic Sensitivity indicates that is extremely likely that fossils will be encountered during development. An

UNDETERMINED Paleontologic Sensitivity reflects a lack of adequate information on a formation to place it in one of the preceding categories.

Paleontologic Sensitivities of Geologic Units

<u>Geologic Units</u>	<u>Paleontologic Sensitivity</u>
Diorite/Gneiss Complex (dgn)	NO
Pelona Schist	NO
Portal Schist	NO
Anaverde Formation	HIGH
Ritter Formation	UNDETERMINED/HIGH
Harold Formation (Qh)	HIGH
Nadeau Gravel	LOW
Older Alluvium (Qopl)	HIGH
Older Alluvium (Qcm)	LOW
Holocene Alluvium (Qal, Qf, Qsw, Qpa)	LOW

Within the Ritter Ranch Project area are geologic units which range from HIGH to NO Paleontologic Sensitivity. The rock units and sensitivities are presented below.

The Anaverde and Harold Formations and older alluvium are geologic units with histories of fossil recovery. Both vertebrate and plant remains have been collected from these rocks. The ages of these geologic units are important for determining the amount and timing of displacement along the San Andreas and other faults, as well as yielding data on the terrestrial life and climatic conditions of the Pleistocene. The presence of a bone fragment in the Harold Formation (Kahle 1975) also suggests that it is very likely that fossil remains could be unearthed by excavation efforts. However, excavation would also destroy fossil material. The loss of fossils from these units would constitute a significant adverse impact on the paleontologic resource base of this area.

The Ritter Formation has been mapped previously as part of the Anaverde Formation, which has a high paleontologic sensitivity. No fossils have been found in the area now mapped as the Ritter Formation, but this may reflect more a lack of exposure rather than a true lack of fossil material. An undetermined paleontological sensitivity can be assigned to this unit temporarily, with the understanding that a different sensitivity may be warranted after grading commences.

The Nadeau Gravel, older colluvium and holocene alluvium have a low paleontologic sensitivity. The Nadeau Gravel and older colluvium could contain the occasional fossil. The large material size and high energy conditions of deposition would make fossil preservation and recovery random. However, any fossils, if recovered, would be of great importance in establishing ages for these units and could aid in unraveling the complex geological picture of this area. Recent alluvial sediments are considered too young geologically to contain scientifically significant fossils. However, some sediments mapped as recent alluvium could be older and might contain paleontologic resources.

The igneous and metamorphic rocks that underlie the majority of the Ritter Ranch Project have no paleontologic sensitivity due to either the molten origin of the rock, or the high heat/pressure metamorphic alteration they have undergone. On rare occasions, metamorphic alteration of limestone to marble does not destroy all traces of contained fossils. However, the rocks in the project area appear heavily altered, reducing the chances of any fossil preservation to extremely low.

The majority of the Ritter Ranch Specific Plan area is underlain by Portal Schist, Quaternary landslide debris and Younger Alluvium (refer to Exhibit 9, GEOLOGY). Development on these units is not anticipated to represent a significant impact due to the NO and LOW paleontologic sensitivities of the formations. The northern portions of the Ritter Ranch property, particularly Planning Areas 1, 2 and 3, contain more sensitive geologic units such as Older Alluvium and the Anaverde Formation which both have HIGH sensitivity ratings. Unmitigated development on these units would have a high probability of destroying valuable fossil deposits resulting in significant project impacts. However, these impacts can be mitigated through implementation of a Paleontological Monitoring Program. This Program will be based upon detailed geologic mapping of the project site and will provide recommended mitigation measures including monitoring times and number of monitors required for development of paleontologically sensitive areas.

Offsite Infrastructure Improvements

The Amargosa Creek Improvement Project regional facilities will require significant grading within areas expected to contain significant cultural resources. Prior to grading, a complete cultural resources survey will be completed and any significant sites will be salvaged or protected in place, as appropriate.

MITIGATION MEASURES

Archaeological Resources

- *#78. Reports, maps or figures with plotted archaeological locations are considered confidential, and are to be released only on a clearly defined "need to know" basis.
- *#79. Prior to issuance of grading permits for each area of the Ritter Specific Plan, a qualified archeologist shall be retained at the expense of the developer to formulate and carry out an Archeological Monitoring Program for that particular area. The Archeological Monitoring Program as approved by the Director of Planning shall include, but not be limited to measures identified in this EIR, and the 1990 RMW Paleo Associates report (Appendix I), and the 1991 LSA Phase II Archaeology Report (dated June 14, 1991).

- *#79a. The following additional work shall be performed by a qualified archaeologist, retained by the Developer, and approved by the Planning Director. Because the introduction of residents into the area will result in the degradation of these archaeological sites, the required testing specified below and preparation of the subregional report shall be completed, and reviewed and approved by the Planning Director, prior to recordation of the first parcel map or tract map prepared for the project.

LAN-947: There is an additional petroglyph boulder that needs to be recorded. Since the site cannot be preserved in place as the project is currently designed, test units shall be excavated to determine whether subsurface deposits are present. If any are encountered, data recovery shall be conducted.

Those sites which contained surface artifacts but were only auger tested shall be tested with at least one standard test unit per site. The testing program shall be submitted to the City Planning Department for review and approval prior to commencement. In addition, untested cupule sites and hunting blinds shall also be tested in this manner. Any additional mitigation recommended as a result of the additional testing shall be required as a mitigation measure for the development application.

A subregional analysis shall be prepared to provide a basis for significance determinations. It shall include a research design that would set standards for future work in the Ana Verde/Sierra Pelona subregion.

Cupule boulders which have to be relocated must be done under the direction of a qualified archaeologist who will give careful attention to orientation of the boulders. The boulders shall be moved prior to site disturbance in their immediate vicinity to a location approved by the Planning Director. Since context will be lost, some shall be relocated in an interpretive center where they can be used for educational purposes. Representative artifacts could be worked into some sort of display for an interpretive center as well.

- #80. Required research salvaging and/or protection of known sites shall occur prior to approval of a grading permit within the affected area of resources (to the extent feasible, sites shall be protected in place). This includes, but is not limited to the following:

767	1279	1630	1637	1645H
953	1280	1631	1638H	RR-28H
959	1281	1632	1639H	RR-33
1035	1335	1633	1640	RR-35H
1219	1627	1634	1641H	RR-39
1220	1628	1635	1642H	RR-40
1247	1629	1636	1644H	

- *#81. Monitoring during grading activities shall be accomplished by an archaeologist approved by the Director of Planning. Said archaeologist shall be present at any pre-grading conference and shall have the power to enforce required mitigation measures related to cultural resources. Mass grading activity shall be periodically monitored, particularly during initial site clearing, to insure that any buried archaeological deposits which may exist on the property are detected. This monitoring shall be maintained until undisturbed bedrock is exposed. The monitoring archaeologist shall be prepared to document and recover any material which appears as quickly as is consistent with standard archaeological practice. If determined necessary, the archaeologist may halt grading to ensure adequate salvaging and/or protection of

cultural resources (upon which the Director of Planning and Applicant shall be notified).

- *#82. Areas to be disturbed by grading shall be reexamined for cultural resources following removal of the vegetation cover and during initial grading stages. If cultural resource sites are exposed by this activity they shall be subjected to appropriate test excavation and salvaging/protection efforts.

Paleontological Resources

- *#83. Reports, maps or figures with plotted fossil localities are considered confidential, and are to be released only on a clearly defined "need to know" basis.
- *#84. Prior to issuance of a grading permits for each area of the Ritter Ranch Specific Plan, a qualified paleontologist shall be retained at the expense of the developer to formulate and carry out a Paleontological Monitoring Program for the site that particular area. The Paleontological Monitoring Program approved by the Planning Director shall include, but not be limited to measures identified in this EIR.
- *#85. A qualified paleontologist shall be retained to monitor and, if necessary, salvage scientifically significant fossil remains.
- *#86. The paleontologist shall have the power to temporarily divert or direct grading efforts to allow evaluation and, if necessary, salvage of exposed fossils.
- *#87. The matrix samples for microvertebrates shall be submitted for processing and identification at a facility such as the Los Angeles County Museum of Natural History.
- *#88. Paleontological monitoring efforts shall be based on the sensitivity of the geological units being excavated, the number of equipment in operation at one time, and the amount of material (in cubic yards) being moved.
 - a. Geological units of "high" sensitivity shall be monitored on a full-time basis. If more than one piece of heavy equipment is being run simultaneously and/or more than 25,000 cubic yards of earth is to be graded per day, then additional monitors will be needed.

- b. Geological units of "low" sensitivity require monitoring at least once every five days of grading activity. If significant fossils are recovered during grading, then a change in paleontologic sensitivity would be warranted, and full-time monitoring could be needed.
 - c. Geologic units of "no" paleontologic sensitivity will not require monitoring.
- *#89. Matrix samples for microvertebrate screening shall be collected and processed during monitoring. If microvertebrates are present, up to 6,000 pounds of matrix will need to be sampled. This material can be placed to one side of the active grading so as not to delay the project. Screening may be done onsite.
- *#90. All fossils collected need to be prepared to the point of identification. These remains should be donated to an institution with an educational and/or research interest in the materials and a retrievable storage system, such as the Los Angeles County Museum of Natural History. This shall occur within one year of individual project completion.
- *#91. A final report summarizing findings, including an itemized inventory, contextual stratigraphic data, and photographs shall accompany the fossils to the designated repository with an additional copy sent to the City of Palmdale Planning Department. Because development of the proposed project is phased over many years, separate reports may be required to summarize mitigation for certain fossil sites.

UNAVOIDABLE SIGNIFICANT IMPACTS

Upon implementation and completion of required mitigation measures, no unavoidable adverse impacts are anticipated. However, due to the potential significance of the rock art at CA-LAn 947, if this site cannot be avoided by development, mitigation of the adverse effects to an insignificant level may not be possible.

K. PUBLIC SERVICES AND UTILITIES

Information in this section is based on correspondence received from Public Service and Utility agencies (refer to Appendix J, CORRESPONDENCE and the City of Palmdale Draft General Plan).

POLICE SERVICE

EXISTING CONDITIONS

General law and traffic enforcement for the Ritter Ranch Specific Plan and annexation areas is provided by the Los Angeles County Sheriff's Department (Antelope Valley Station). The Antelope Valley Station is located at 1010 West Avenue J in the City of Lancaster and is approximately 13 miles from the proposed project site. At present, the Antelope Valley Station services an approximate population of 243,000 and covers 1,368 square miles.

Currently 1 captain, 7 lieutenants, 21 sergeants, 187 deputies, and 9 Community Service Deputies (CSDs) are assigned to the Antelope Valley Station. Also, the station is assigned 64 vehicles which include patrol cars, unmarked patrol cars, jeeps, rescue vehicles, CSD vehicles, K-9 cars, and a mobile command post.

Out of the currently available resources at the Antelope Valley Station, approximately 75% are committed and contracted to the Cities of Lancaster and Palmdale (approximately 55% to the City of Lancaster and 45% to the City of Palmdale). The remaining 25% of the total Antelope Valley Station resources are committed to the unincorporated county areas (including the project area).

Currently, two patrol units cover the project area. Response times to the project site would be approximately 20 minutes for a routine call, and 5-6 minutes for an emergency call. These estimations are based on the location of the nearest available patrol unit.

Recently, the Los Angeles County Sheriff's Department has expressed an interest in locating a station within Palmdale. No site has been determined for this facility, although several alternative locations are being considered in the developed area of Palmdale. The Sheriff's Department has estimated that a 15 to 20-acre site will be required to provide a full service sheriff's facility. A location central to the City is preferred to provide maximum service.

Therefore, a site in the Ritter Ranch Specific Plan would be too remote to accommodate the needs of the Sheriff's Department, and is therefore, not being considered as an alternative.

IMPACTS

The cumulative impacts of the project, with existing and other developing properties, is not immediately predictable. When completed, the development will result in approximately 7,200 homes on 10,625 acres, supporting an estimated population of 20,000, based on the standard of 2.8 persons per Equivalent Dwelling Unit. The development of this vacant land will place a significant increased demand for services beyond what is currently being expended on the property. Both general law and traffic related incidents would be expected to increase as a result of the project. The 309 units allowed in the Other Annexation Areas are not expected to significantly impact police service. The 309 units allowed in the Other Annexation Areas are not expected to directly cause significant impacts to police service. However, they, along with the other projects proposed nearby, will cumulatively impact police services.

The Antelope Valley Station current deputy/population ratio is 0.89 deputy personnel for a service population of 1,000. An accepted industry standard is generally 1 per 1,000. Based on development projections, an additional 18 deputy personnel would be required to maintain the current level of service required when the project is completed. Additional vehicles and support personnel would also be at the same approximate ratio. These changes would be made in phases to compensate each project phase.

Manpower increases necessary to accommodate this project are determined on an as needed basis by the County of Los Angeles. They are based on, but not limited to the following items: population, response times, number of calls for service, number of reports taken, number of and types of arrests/bookings, number of traffic accidents and related incidents. Generally, as these factors rise usually in phases, an increase in manpower and equipment would be required.

If a new police station is not constructed within the Palmdale vicinity, significant cumulative impacts are expected for police response time.

MITIGATION MEASURES

The following mitigation measures will reduce impacts of the proposed Specific Plan, and shall be implemented by each applicant prior to occupancy permits for future site-specific development submittals:

- *#92. Adequate emergency access and circulation throughout and around the project shall be provided to the satisfaction of the Los Angeles County Sheriff's Department. Temporary emergency access shall be provided during project construction.
- *#93. Adequate lighting shall be provided to enhance crime prevention and law enforcement efforts to the satisfaction of the Los Angeles County Sheriff's Department. However, lights shall be designed and located so that direct lighting is confined to the property, and lighting should not be of greater intensity (wattage) than otherwise necessary for public safety.
- *#94. Proper address signs shall be provided for identification of locations during emergencies.
- *#95. ~~Landscape feature standards which do not conceal potential criminal activity around buildings and in parking areas shall be provided. This measure will be implemented to the satisfaction of the Los Angeles County Sheriff's Department. The Applicant shall consult with the Los Angeles County Sheriff's Department regarding landscape standards to ensure that landscape features do not conceal potential criminal activity around buildings and in parking areas. This measure will be implemented to the satisfaction of the City of Palmdale Planning Director and City Engineer, prior to staff acceptance of the Landscape Plan.~~
- #96. ~~The applicant must participate in funding of a new police station and associated equipment as determined by the Los Angeles County Sheriff's Department. This may include acquisition of a 15-acre regional facility offsite, funding for acquisition of a site, construction of the facility or other requirements as determined appropriate by the Los Angeles County Sheriff's Department.~~

LIBRARY SERVICES

EXISTING CONDITIONS

The Palmdale City Library is a 12,400 square foot facility located on the corner of Palmdale Boulevard and Sierra Highway. Presently, the library holds approximately 75,000 volumes, and has 20 full-time equivalent employees. However, the current square footage is inadequate for the library's materials, staff, and usage, and, therefore, limits the facility's ability to provide service.

IMPACTS

Library standards suggest 2.5 volumes per capita, 0.5 staff per thousand population and a figure of 0.8 square feet per capita. For the current population of approximately 78,000, this facility should have 62,400 square feet of library space, 195,000 books, and a staff of 39. At present, the City is currently addressing the problem of inadequate library facilities and its plans to include a central library facility that may be able to handle branch service. However, a project of this size, and in its present location, may present special adverse effects upon library service, particularly to project residents. The Palmdale City Library facility would be unable to meet the needs of the new community, and its residents may find it inconvenient to drive to the center of town for help with school assignments, to find recreational reading or viewing, or for personal information or enrichment. The distance, numerous streets, railroad crossing, and geographic barriers may result in a commute exceeding the optimum acceptable 15 minute drive time. Significant impacts may affect library services; however, with the implementation of the following mitigation measure, impacts are anticipated to be reduced to less than significant levels. The annexation properties (309 units permitted) are not expected to significantly impact library service.

MITIGATION MEASURES

~~There are no feasible mitigation measures which can be placed on this project to alleviate significant project-related impacts to library services.~~

~~The following mitigation measure was offered by the Palmdale City Librarian:~~

~~#97. The applicant shall construct a branch library facility within the Ritter Ranch community, to be a minimum size of 16,000 square feet and have a book collection~~

~~of approximately 50,000 volumes. The applicant shall reserve a site of adequate size as reviewed and approved by the City. The applicant may enter into a reimbursement arrangement, as approved by the City, with the adjacent developer to share the cost of this facility.~~

SCHOOLS

EXISTING CONDITIONS

The proposed project lies within the service area of the Antelope Valley Union High School District and the Westside Union School District (K-8). The proposed development would be serviced by Highland High School, which is scheduled to open in September, 1991. The high school will be located at Avenue P-8 and 25th Street West, and will be located approximately 3 miles from the proposed project. The capacity of the high school will be approximately 2,100 students.

The Westside Union School District is scheduled to provide school services (elementary/middle-junior high) for the proposed project. As stated by the District in a July 31, 1990 phone conversation, all schools within the District, with the exception of the Rancho Vista School, are 20-30% over the rated capacity, and have only been able to provide service for the current residents because of temporary facilities (i.e., trailers).

As stated by the Antelope Valley Union High School District (AVUHSD), the student generation factor is 0.3 ~~0.2~~ high school students per dwelling unit. It is estimated that the Antelope Valley Union High School District enrollment in 1991 will be 11,624 students, with a District capacity of 10,230. In 1992, a further enrollment increase to 12,798 is expected with no additional facilities projected within the 1992 year.

The Westside School District has projected a generation rate within their service area of 0.45 K through 5 students per household and 0.15 middle school students per household. The district's average capacity for elementary schools depends on whether classes are held on a traditional school schedule (9 months) or whether classes are held year-round; the typical capacity is 660 students per traditional school and 782 students per year-round school. Middle schools within the district are designed with capacities of 800 students (traditional schedule) to 960 students (year-round schedule).

IMPACTS

The Westside School District has provided estimates of 3,015 elementary school students and 1,005 middle school students generated from the Ritter Ranch development. This estimate did not include the 494 senior housing units proposed for Planning Unit 5Q. However, since fair housing laws can not preclude children from occupying these homes with their senior relatives, some students could potentially be generated from these units. Therefore, the senior dwelling units could generate approximately 220 additional elementary school students and 75 additional middle school students. It is expected, however, that the generation rate from this type of dwelling unit would be substantially lower than the standard of 0.60 students per household.

The Ritter Ranch Specific Plan identifies five elementary school sites and one middle school site. Based upon the projected capacities described above, the project will provide school facilities for 3,300 elementary school students (traditional schedule) and 800 middle school students (traditional schedule). Assuming a year-round schedule, these schools could accommodate 3,910 elementary school students and 960 middle school students. Therefore, the project will provide sufficient capacity for all elementary school students and 75% to 88% of the middle school students expected from the proposed project.

Schools proposed to be located on arterial roadways could pose safety hazards to students who will be required to cross them. These risks will be reduced through implementing 25 mph speed limits during school hours and by requiring such schools to implement safety programs which would require cross-walks and crossing guards to be on duty according to City Guidelines to assist students in crossing the street safely.

Approximately six new high schools within the Antelope Valley Union High School District are planned for construction before the end of this decade. These six schools will cost approximately \$300 million. Projected facility funding needs are expected to reach \$340 million by the year 2000 when the AVUHSD student population is anticipated to reach 22,000¹.

¹Antelope Valley Press, September 20, 1990.

<u>Type of School</u>	<u>Planning Area Unit</u>	<u>School District</u>	<u>Net Acres</u>	<u>Adjacent Uses</u>
Elementary	2A	Westside Union	8	Single-Family Detached, Community Park and Open Space
Elementary	4B	Westside Union	8	Single-Family Detached, Community Park and Open Space
Elementary	5E	Westside Union	8	Single-Family Attached and Neighborhood Park
Elementary	6M	Westside Union	5	Single-Family Detached and Neighborhood Park
Elementary	6W	Westside Union	5	Single-Family Detached, Open Space and Neighborhood Park
Middle School	5I	Westside Union	20	Single-Family Detached and Neighborhood Park
High School	2C	Antelope Valley Union	50	Elementary School, Park, Open Space and Single-Family Detached
TOTAL			104	

The Other Annexation Areas will impact school facilities, depending on capacity available at the time of development. These areas could generate 139 elementary school students, 46 middle school students, and 93 high school students. While this student population is not considered individually significant, it will contribute to the cumulative impacts which will affect the school districts.

MITIGATION MEASURES

#98. All schools shall be required to implement safety programs (in accordance with State and City Guidelines) which may include where appropriate, the following:

- Crossing guards to be present to assist students in crossing the street
- School speed zone signs
- Pedestrian cross walks
- Flashing warning lights where sight distance is limited, as in Planning Unit 2A
- Signalized intersection or stop signs (to be provided by applicant if deemed necessary by the City traffic engineer)

#99. (A) Westside Union School District: The developer shall comply with the terms of the agreement, dated November 26, 1991, between the developer and the Westside Union School District as mitigation for impacts caused by development of the project on the Westside Union School District. The terms of that agreement are as follows:

- (i) **Development Fees.** Developer hereby agrees to pay to District one dollar and ninety-nine cents (\$1.99) per square foot of habitable residential development prior to the issuance of the building permit on each unit. A fee of twenty-six cents (\$.26) per square foot of industrial/commercial construction shall be paid to the District prior to the issuance of each commercial building permit. All such amounts shall be subject to annual adjustment pursuant to increases or decreases in the School Construction Cost Index of the Office of Local Assistance with January 1, 1992 as the base.
- (ii) **School Sites.** In addition, Developer hereby agrees to sell to District three (3) eight acre elementary school sites with each being adjacent to a park, two (2) five acre school sites with each being adjacent to a park, and one (1) twenty-acre middle school site, designated in Exhibit B, attached hereto and incorporated herein by reference.

The purchase price for the District shall be the fair market value of each site at the time escrow is opened, not to exceed \$100.00 per acre plus annual adjustments based upon increases or decreases in the school construction cost index of the Office of Local Assistance with January 1, 1992 as the base. The fair market value shall include all offsite improvements and grading of the site.

In the event that the parties cannot agree on the fair market value, each party shall obtain an appraisal from an MAI certified appraiser. If the two appraisals are within \$5,000 of each other, the FMV shall be the lowest value plus one-half of the difference. If the difference between the two appraisals is more than \$5,000, the County Superintendent of Schools shall designate a third appraiser who shall be independent of the parties and MAI certified and who shall conclusively establish the fair market value. The cost of the third appraisal shall be borne equally by the parties.

Developer shall perform all offsite improvements such as roads, curbs, gutters, water (with a flow guaranteed to meet fire safety requirements) sewer, and utilities to the site for no cost to District except as provided above. Developer shall also provide rough grading of the site to District's reasonable specifications. Title to the site shall be transferred to District, free and clear of all monetary liens, assessments, taxes and encumbrances and easements or any restrictions which interfere with the District's plans to use the property for the development of the school sites prior to the filing of any final map on the tract. Onsite and offsite improvements shall be performed concurrently with improvements on the remainder of the tract.

The District may exercise its right to acquire the property by serving written notice on Developer and opening an escrow account. Developer shall within thirty (30) days of receipt of notice deposit a grant deed conveying title as referred to above. Notice by the District to purchase the property shall not be served earlier than the filing of a final subdivision map on any adjacent property. The District shall indicate its intent to purchase any particular school site no later than one (1) year after the filing of a final subdivision map on any adjacent property. District shall deposit the purchase price in escrow. Escrow shall close within thirty days of opening.

(B) Antelope Valley Union High School District. The Developer shall provide the following mitigation to the District in order to provide its contribution toward the District's fifty (50) percent share of funding a new high school on the site, pursuant to Government Code Section 65995 and Education Code Section 17700 et. seq. (School Facility Funding Law):

(i) Developer Fees. Developer shall pay to the District one dollar and twenty cents (\$1.20) per square foot of habitable residential development, including senior housing, prior to the issuance of the building permit on each unit. A fee of twenty-six cents (\$.26) per gross leasable square foot of industrial/commercial construction shall be paid to the District prior to the issuance of each commercial building permit. All such amounts shall be subject to annual adjustment pursuant to increases or decreases in the School Construction Cost Index of the Office of Local Assistance with January 1, 1992 as the base.

- (ii) **School Sites.** In addition, Developer hereby agrees to offer the District a site for purposes of constructing a high school thereon, with the terms for dedication as set forth herein. The Developer shall dedicate fifty (50) acres of land in Planning Area 3A for a school site to the District at no cost to the District. The specific fifty (50) acres of the seventy-six (76) acres in Planning Area 3A shall be at the election of the District. Title to the site shall be transferred to District free and clear of all monetary liens, assessments, taxes and encumbrances and easements or any restrictions which interfere with the District's plans to use the property for the development of the school site prior to the filing of any final map on a subdivision tract in the Specific Plan area. In the event that site preparation work on the school site, including provision of access to Elizabeth Lake Road and utilities, exceeds the amount of \$4,300,000, the Developer shall pay fifty (50) percent of the amount over that figure, not to exceed a total of \$350,000.
- (iii) **Transfer Procedures.** The District may exercise its right to acquire the site specified above by serving written notice on Developer and opening an escrow account. Developer shall within thirty (30) days of receipt of notice deposit into the escrow a grant deed conveying title as referred to above. Escrow shall close within thirty days of opening.

~~The applicant shall dedicate school sites and construct new and/or interim school facilities as determined necessary by the Planning Director according to the specifications provided by the Westside Union School District and the Antelope Valley Union High School District to accommodate the students generated by the Ritter Ranch development. The facilities shall be provided within the timeframes set by the School Districts to accommodate the project's student population. However, the following guidelines should be considered for providing schools:~~

- ~~• School sites shall be deeded to the School District at the time that Final Maps are recorded.~~
- ~~• An elementary school should be constructed and operational prior to issuance of the 1,400th occupancy permit for the project as a whole. In addition, for each subsequent 1,400 occupancy permits, an additional elementary school should be constructed.~~

- ~~The middle school should be constructed and operational prior to issuance of the 5,000th occupancy permit for this project.~~
 - ~~The high school should be constructed and operational prior to issuance of the 7,000th occupancy permit for the project.~~
 - ~~Provisions for mitigating the impacts to the middle schools, caused by the need to provide additional facilities beyond those proposed onsite to accommodate all middle school students, should be determined prior to issuance of the first occupancy permit for the project either through the payment of fees, dedication of property, construction of facilities, and/or other methods deemed appropriate by the school district.~~
- ~~#99a. Prior to completion of the permanent school facilities, the applicant shall provide interim facilities, which may include but shall not be limited to, classrooms, administration offices, and ancillary facilities, as may be required to house students generated by the proposed project on an interim basis.~~

TELEPHONE SERVICE

EXISTING CONDITIONS

Telephone service for the proposed development will be provided by the Pacific Bell Telephone Company. Currently, buried and aerial telephone facilities exist on Elizabeth Lake Road.

IMPACTS

It is anticipated that existing telephone facilities will require extension and/or relocation. Telephone service will be provided in accordance with current rates and tariffs. In addition, adequate time will be needed in order to ensure proper phone service (90-120 days from receipt of a completed set of formalized plans). As stated by Pacific Bell, the proposed project is not anticipated to create adverse impacts to their service ability.

MITIGATION MEASURES

- *#100. Onsite telephone facilities shall be provided by utilizing joint trenches.
- #101. Developers of individual properties within the Specific Plan area will be responsible for payment of assessment fees and installation of required conduits prior to issuance of occupancy permits.

ELECTRICAL SERVICE

EXISTING CONDITIONS

Electrical services for the project will be provided by the Southern California Edison Company. At present, SCE has local and regional facilities within the boundary area of the project, with 12 KV (kilo-volt) lines serving rural domestic and light pumping loads. Major electrical lines traverse the northeastern, western, central and southern onsite project area.

IMPACTS

Based on the information available at the present time, the Ritter Ranch project will require approximately 39 megawatts or 4 circuits (figures based on historical factors for population). Further, an update of SCE facilities may be required to service the project. Also, several existing designs will have to be updated to handle the new load; however, without a more detailed plan, it is not possible to list modifications that may be required at the present time. Short-term construction or related impacts, and potential adverse significant impacts are not anticipated by SCE.

The Other Annexation Areas are not expected to result in significant electrical service impacts.

For information regarding impacts relating to construction near electrical transmission lines refer to Section IV.K, PUBLIC HEALTH AND SAFETY.

MITIGATION MEASURES

- *#102. All permanent powerlines shall be placed underground (consistent with the City's current Undergrounding Ordinance) by the applicant prior to issuance of occupancy permits.
- *#103. The project applicant shall coordinate with SCE to ensure that adequate electrical service is provided to the proposed development and that service connection activities will be performed in cooperation with SCE to minimize any short-term impacts.

WATER SERVICE

EXISTING CONDITIONS

The property lies within the sphere of influence of Los Angeles County Waterworks District No. 4 and approximately one mile west of Los Angeles County Waterworks District No. 34. Although no part of the property falls within District No. 34 or its sphere of influence, future administrative and boundary changes make this the best alternative for annexation. This District presently obtains its water supply from three metered Antelope Valley East Kern Water Agency (AVEK) turnouts. The backup water supply is obtained from groundwater wells located in the Lancaster Subunit of the Antelope Valley Groundwater Basin.

District No. 34 is divided into two zones, the 2,911-foot Service Zone and the 3,240-foot Service Zone. The 2,911-foot Service Zone is provided by two pumping stations located at Avenue P and 10th Street West (P10W) and Avenue O-4 and Division Street (O-4/D). The combined capacity of these stations is presently 10,600 gallons per minute (gpm) with provisions for an additional 7,200 gpm of pumping capacity. The 2,911-foot Service Zone has a total of 6.8 million gallons (MG) of water storage. Additional 2.5 MG and 1.5 MG water storage reservoirs are planned for this Service Zone. The 3,240-foot Service Zone is presently served by an 1,800 gpm hydropneumatic pumping station. Water storage for this Zone is contained in the 2,911-foot Service Zone.

Untreated water is currently available from both an existing AVEK turnout located east of the property and from existing groundwater wells located in the Anaverde and Leona Valleys. The water at the turnout is pumped directly from the California Aqueduct. The

raw water from the Aqueduct is ~~These sources of untreated water are suitable and will be~~ used for construction watering and landscape irrigation within the Ritter Ranch Specific Plan area. The applicant has indicated that the groundwater wells onsite will be capped and not used for any purpose once development of the site commences. Therefore, this source of water will not be utilized for construction or irrigation water. If, in the future, the applicant wishes to extract local groundwater, a study to determine the extent and magnitude of impacts caused by extraction of that water on other uses of the local groundwater supply will be required, and mitigation to minimize those impacts will be applied.

The water supply proposed for Ritter Ranch will originate from several sources. The potable water supply will be acquired from District No. 34, Desert View Highlands. District No. 34 obtains its water supply from AVEK. AVEK water is treated at the Quartz Hill Water Treatment Plant, conveyed through the South Feeder transmission mains, and delivered through three separate turnouts. If the AVEK water supply is interrupted, District No. 34 maintains continuity of supply by using ground water pumped from the Lancaster Subunit of the Antelope Valley Groundwater Basin.

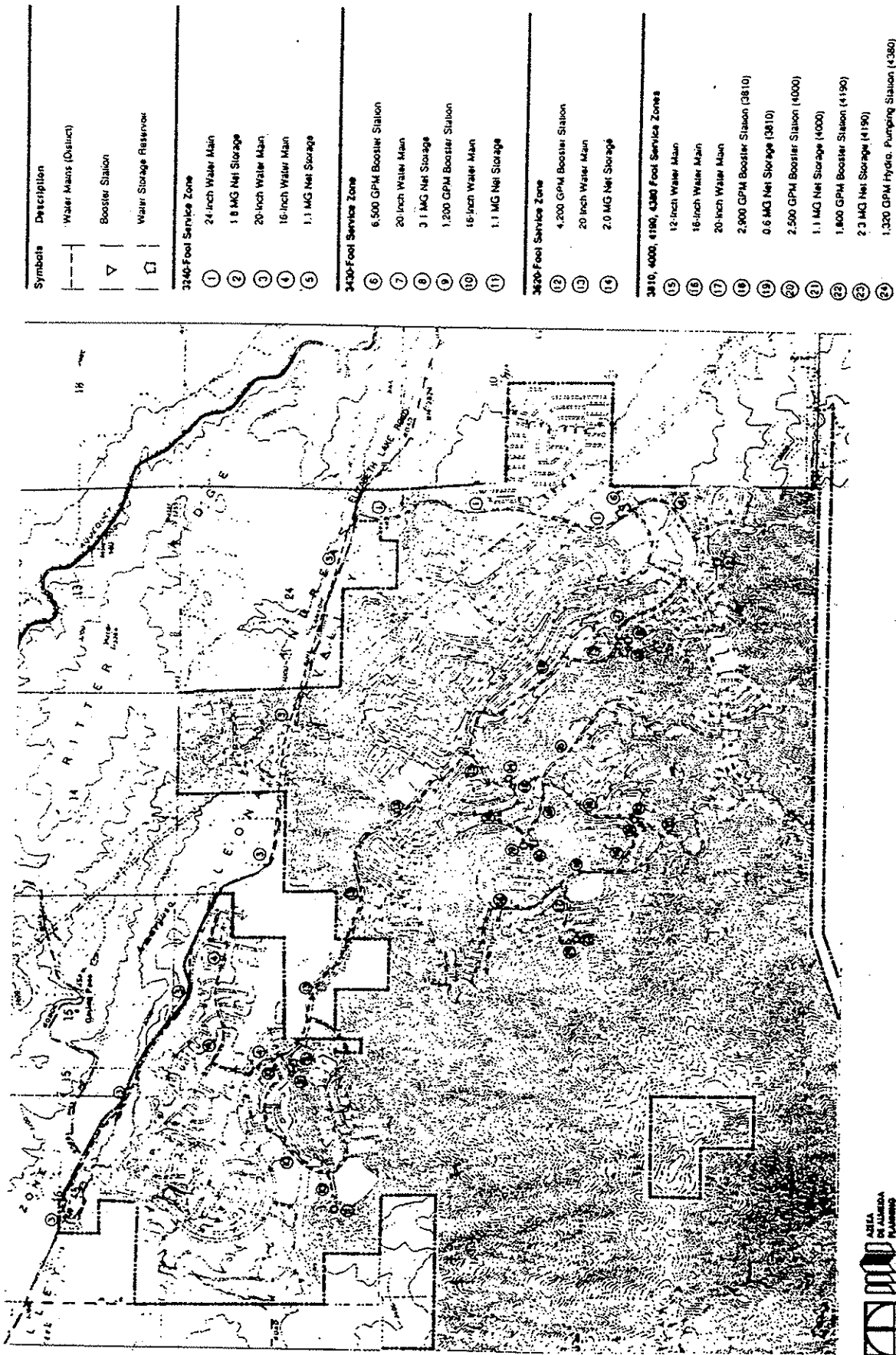
IMPACTS

The project will require a significant amount of water and significant onsite and offsite water facilities. Ritter Ranch water demand is estimated at over 7,000 acre-feet per year (based on a maximum day demand of 10,700 gallons per minute, as shown on page 3-9 of the "Ritter Ranch Water Supply Study" by Brockmeier Consulting Engineers, December, 1989). ~~Required mitigation measures will substantially reduce project impacts, although significant individual and cumulative impacts to the regional water supply are expected to remain.~~

Water system improvements will be required to provide an adequate water supply to the proposed Ritter Ranch project area. (The project will require annexation to the Waterworks District.) The topography and elevation of Ritter Ranch will require that six additional Service Zones be constructed. The future water systems serving Ritter Ranch will include the 3,430-foot, 3,620-foot, 3,810-foot, 4,000-foot, 4,190-foot and 4,380-foot Service Zones in addition to the existing 3,240-foot Service Zone. The proposed onsite water systems will include several miles of water supply main, seven pumping stations, several pressure reducing stations, and approximately 13.0 million gallons (MG) (net) of water storage capacity in eight water storage tanks (see Exhibit 19, ONSITE WATER PLAN). Above-ground water storage tanks will generally be located in the higher elevations adjacent

Water Plan On-site

Exhibit 19



Source: BROCKMEIER Consulting Engineers, Inc.

Ritter Ranch Specific Plan

to residential areas. Appropriate grading and landscaping are expected to reduce impacts to less than significant levels, with respect to aesthetics and land use compatibility.

The principal source of water supply for Ritter Ranch will be delivered from AVEK through both the existing South Feeder and the proposed 48-inch South Feeder Relief. This water will be delivered to LACWWD No. 34 at a future utility site located at Avenue O-8 and 25th Street West (O-8/25W). This water will be conveyed to Ritter Ranch through a network of existing and proposed facilities extending through both the 2,911-foot and 3,240-foot Service Zones.

If the AVEK supply is interrupted, water will be provided to Ritter Ranch from new groundwater wells pumping approximately 6,000 gallons per minute (gpm) from the Lancaster Subunit. The wells will be located west of 60th Street West along Avenue H.

Water will be treated and pumped through existing and proposed LACWWD No. 4 facilities to the AVEK water system. Water will then be pumped into AVEK and conveyed to the O-8/25W utility site and then to the Ritter Ranch project.

Although development plans have not been submitted for the 309-acre annexation area portion it is assumed that water supply will be provided by District 34. The units are not considered a significant water supply impact.

The Specific Plan contains provisions to construct a package water treatment plant on the project site at a later date (this facility is not currently proposed for construction, however). Should a water treatment facility be constructed in the future, gray water could be produced to supplement the supply of raw water for landscape irrigation. A study entitled "Ritter Ranch Sewerage Study", prepared by Brockmeier Engineering, determined that an onsite wastewater treatment facility was feasible after 30 percent of the project was developed. If the developer decides to construct this facility in the future, a conditional use permit, and a subsequent environmental review process, will be required.

MITIGATION MEASURES

- *#104. The applicant shall cause the project area to be annexed to the Los Angeles County Waterworks District #34 service area.

*#105. As required by state law, the following water conservation measures will be incorporated into the project:

- Low-flush toilets and urinals
- Low-flow showers and faucets
- Insulation of hot-water lines in water recirculating systems
- All fixtures must be California Energy Commission (CEC) certified
- Public lavatory facilities must be equipped with self-closing valves.

*#106. The following water conservation measures shall be implemented where applicable and feasible:

Interior

- Supply line water pressure greater than 50 pounds per square inch (psi) shall be reduced to 50 psi or less by means of a pressure reducing valve.
- Drinking fountains shall be equipped with self-closing valves.
- Laundry facilities shall use water-conserving models of washers.
- Ultra low-flush toilet (1-1/2 gallons per flush) shall be installed in all new construction.
- ~~In restaurants, water conserving dishwashers shall be used and drinking water shall be served only upon request.~~

Exterior

- Landscape with low water-consuming plants wherever feasible.
- Minimize use of lawn by limiting it to lawn-dependent uses, such as playing fields. When lawn is used, require warm season grasses.
- Group plants of similar water use to reduce overirrigation of low-water-using landscaping.
- Provide information to project residents and tenants regarding benefits of low-water using plants.
- Use mulch extensively in all landscape areas. Mulch applied on top of soil will improve the water-holding capacity of the soil by reducing evaporation and soil compaction.
- Preserve and protect existing trees and shrubs. Established plants are often adapted to low-water-using conditions and their use saves water needed to establish replacement vegetation.

- Install efficient irrigation systems which minimize runoff and evaporation and maximize the water which will reach the plant roots. Drip irrigation, soil moisture sensors and automatic irrigation systems are a few methods to consider in increasing irrigation efficiency and may be feasible for the project.
- Use pervious paving material whenever feasible to reduce surface water runoff.

*#107. Provision of water service to the proposed project will be required as a part of the project development and will occur to the satisfaction of the City of Palmdale prior to issuance of building permits. Project implementation will require mitigation in coordination with the City of Palmdale, Los Angeles Waterworks District No. 34, and the Los Angeles County Fire Department.

*#108. Above-ground water storage tanks shall be designed with appropriate grading, color, and landscaping techniques to minimize visual impacts to be reflected in applicable Landscape Plans and Grading Plans.

SEWER SERVICE

Relative sewage treatment and trunk sewer facilities are owned and operated by the Los Angeles County Sanitation District No. 20. The nearest existing point of connection to the District's trunk sewers is located at 10th Street West, south of Avenue P ~~Division Street and Avenue P-8~~ in the City of Palmdale. This sewer, Trunk A, connects to the Palmdale Water Reclamation Plant (WRP).

EXISTING CONDITIONS

The wastewater generated by the proposed development will discharge to, and be conveyed through, a local sewer network, to the proposed Amargosa Creek Trunk Sewer. The Amargosa Creek Trunk Sewer is proposed to be constructed along the Amargosa Creek, between 10th Street West and Bridge Road, and connect to the Sanitation Districts' existing trunk sewer network near Avenue P and 10th Street West (at the Trunk "C" Relief Sewer, formerly known as the Diversified Center Trunk Sewer). The Amargosa Creek Trunk Sewer is proposed to be extended from Bridge Road to Godde Hill Road as part of the Amargosa Creek Improvement Project. The proposed Amargosa Creek Trunk Sewer will be constructed as a City of Palmdale project and, upon completion and acceptance, will be

transferred to Sanitation District No. 20 for operation and maintenance. Assessment District 90-1 will provide funding for the construction of this trunk sewer.

The wastewater will be treated at the Palmdale Water Reclamation Plant (WRP), located on 30th Street East, between Avenue P and Avenue P-8. The Palmdale WRP currently has an average flow of 7.8 mgd. In order to meet the current service demand, the Sanitation Districts are presently expanding the treatment capacity of the Palmdale WRP through surface aeration of the existing oxidation ponds. The Sanitation Districts will continue to incrementally expand facilities as needed to accommodate additional development, up to the allowable level addressed in the recently completed Addendum to the Final EIR and Supplemental Report Finalizing the Wastewater Facilities Plan for Los Angeles County Sanitation District No. 20. This document provides for the treatment of influent wastewater flows up to 15 mgd at the Palmdale WRP.

The proposed project area is outside the jurisdiction boundaries of the Sanitation Districts and will require annexation to Sanitation District No. 20 before sewage service can be provided to the proposed development.

The service area and location for the potential "Onsite Wastewater Treatment Plant" will be in the Ritter Ranch project area. The type of treatment for the onsite wastewater plant will be secondary, with the proposed reuse function scheduled for irrigation purposes.

The Sanitation Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting to the Sanitation Districts' Sewage System. A connection fee is required in order that necessary expansions to the Sewage System can be constructed to accommodate new development. Payment of a connection fee will be required before a permit to connect to the sewer is issued.

The Sanitation Districts also have an annual service charge to fund the operation and maintenance of the Sewage System. The current service charge for a single-family home in District No. 20 is \$51.00. The service charge is subject to revision annually.

IMPACTS

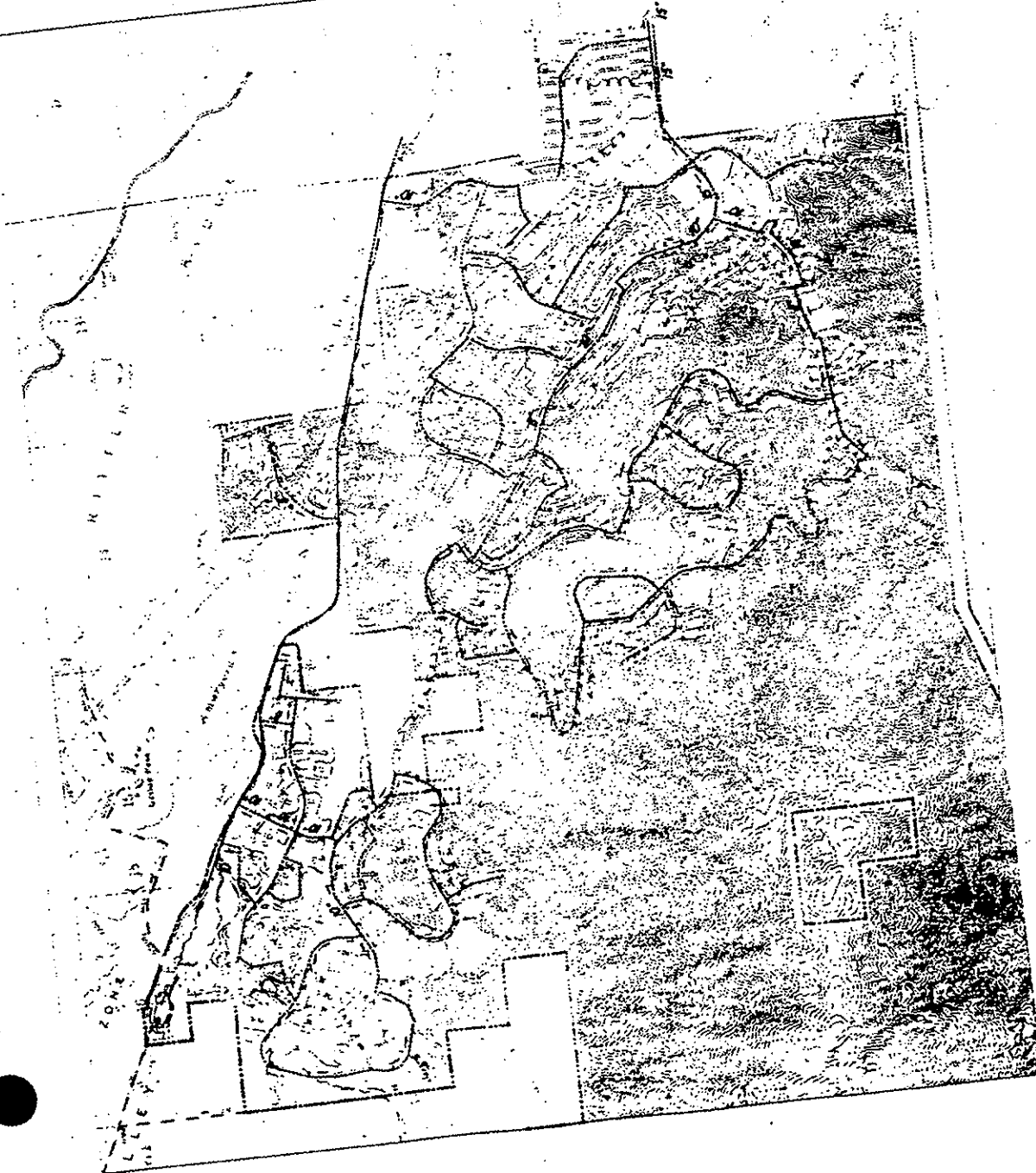
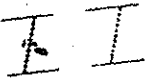
All proposed trunk sewers associated with backbone streets within the portion of Ritter Ranch tributary to the Antelope Valley drainage basin are shown on Exhibit 20, ONSITE SEWER PLAN. The onsite sewers have been sized to meet Los Angeles County Sanitation

Sanitary Sewer Plan On-Site

Exhibit 20

Sanitary Sewer Main
(Diameter (in.))

Offsite Sanitary Sewer Main



Ritter Ranch Specific Plan

District's design criteria, in accordance with flows generated by the proposed development shown on the Specific Plan. All the trunk sewers are tributary to the proposed Elizabeth Lake Road Trunk Sewer which will intercept the various trunk sewer flows as it proceeds from the west to east along the northerly fringe of the project site.

Local sewer collection systems within the Planning Units tributary to the trunk sewers will flow into these trunklines. The specific design of the collector lines will be developed when each Planning Unit is developed. Lift stations may be required in areas where gravity sewers are not effective.

A site has been reserved onsite to facilitate the potential construction of a Water Reclamation Facility (Planning Area 4H). The Water Reclamation Facility would provide "gray water" for irrigation of the golf course, parks and right-of-way landscaping (see Section IV.C, WATER RESOURCES).

To serve the Ritter Ranch area, the Amargosa Creek Trunk Sewer will be continued westerly along the south bank of the Amargosa Creek drainage channel to Elizabeth Lake Road (as a separate City infrastructure project). This trunk sewer will follow the Elizabeth Lake Road alignment to the intersection with the northwest corner of the property. The Amargosa Creek Trunk Sewer will then be connected to a trunk sewer in Elizabeth Lake Road, which is designed to serve the Ritter Ranch and other pending and approved projects. This trunk sewer will follow the alignment of Elizabeth Lake Road and extend from the point of connection of the Amargosa Creek Trunk Sewer, to the farthest northwest corner of the Ritter Ranch development in the vicinity of Bouquet Canyon Road a point approximately 8,800 feet east of Bouquet Canyon Road. This sewer line extension will create significant growth inducing impacts which are discussed in Section V.

Buildout of the project would result in increased effluent volumes. The extension or construction of several sewer lines may be needed in order to serve the development. However, the impacts of construction will be reduced to less than significant levels if the sewer lines are constructed during the grading phase of the development. The developer may be required to pay assessment fees in order to pay for wastewater collection and treatment services.

The 2.1 mgd of wastewater which is expected to be generated by the Ritter Ranch development, as well as the cumulative effect of additional wastewater resulting from other proposed projects in the Palmdale area (such as City Ranch), will constitute a significant increase over the existing demand. However, recognizing that the development will be

phased in over the next 20 years, the anticipated flow increase would incrementally impact the sewage system, allowing the Sanitation Districts to expand facilities as needed to accommodate the increased demand. As stated above, the connection Fee Program will provide the funds necessary to construct sewer relief and treatment plant expansion projects.

The 309 units permitted in the Other Annexation Areas are not considered a significant sewer service impact. Service may be provided by District No. 20 through the proposed Amargosa Creek Trunk Sewer.

MITIGATION MEASURES

#109. The project developer will be required to pay sewer assessment fees ~~or will~~ provide adequate onsite wastewater conveyance facilities, and will conform with City Public Works Department and County Sanitation District No. 20 development standards pertaining to wastewater. All structures and/or facilities will connect to the sanitary sewer system. No septic systems will be allowed with the possible exception of restroom facilities located in the remote specialty parks. ~~Subject to acceptance by the Public Works Department and Sanitation District, the developer shall receive credit for building equivalent onsite and offsite facilities. In the event that Assessment District 90-1 is not formed, and the Developer constructs offsite trunk sewer lines within the San Andreas Fault zone, the Developer shall use state-of-the-art designs for the trunk sewer line to minimize the risk of rupture, and subsequent contamination, caused by a seismic event.~~

~~*#109a. In the event that the Developer of the Ritter Ranch Specific Plan constructs offsite sewer lines within the San Andreas Fault zone, the developer shall cause the preparation of an emergency spill response plan. The plan shall include provisions for spilled sewage retention, spill response measures, clean-up and disinfection measures, and training and funding for implementation of the spill plan. The plan shall be reviewed by the Lahontan Regional Water Quality Control Board and Sanitation District No. 20, and reviewed and approved by the Director of Public Works and the Director of Planning.~~

*#110. Any sewer proposed for incorporation into the Sanitation Districts trunk sewer network for operation and maintenance, shall be reviewed and approved by the Sanitation District, prior to any construction.

- *#111. Onsite local sewers shall be designed and approved by both the County of Los Angeles Department of Public Works and the City of Palmdale.

FIRE SERVICE

EXISTING CONDITIONS

The Los Angeles County Fire Department currently provides fire services for the project area. A one-acre fire station site is identified in Ritter Ranch Planning Unit 2B within a community park. The exact configuration of the site shall be determined in the tentative map stage of development.

IMPACTS

Fire emergency incidents can be expected to increase as a consequence of development of the proposed project. Additional equipment such as a fire engine and/or rescue vehicle will be required to accommodate this expected increased workload. Personnel required to operate this equipment will also be necessary. A one-acre fire station has been reserved in Planning Unit 2B which will facilitate provision of a new facility.

To reduce the site's fire hazard, fuel modification zones are proposed adjacent to areas to be developed. However, even with this precaution, the potential for human caused fire will increase due to the operation of construction equipment and an increased incidence of activities such as welding, fuel storage and smoking. Long-term risks will increase due to structural fires and hot ashes and sparks from chimneys spreading to native vegetation and surrounding areas, as well as a general increase of human activity in open space areas. Ritter Ranch Planning Area 3 will require an additional width of 25 feet on the access road (to accommodate fire suppression equipment), fire sprinklers within all residential units, and a helipad for fire service access (due to only one access road). Impacts to fire service will be significant; however, with the provision of new fire facilities, equipment and manpower, impacts will be reduced to less than significant levels.

MITIGATION MEASURES

- *#112. Site-specific development plans shall require review and approval by the Los Angeles County Fire Department with respect to adequate fire flows, emergency access and building construction standards.

#113. The applicant shall provide a pumper truck and patrol car prior to the issuance of the 250th Certificate of Occupancy, and provide a fully operational fire station of an acceptable size and location as determined by the Los Angeles County Fire Department. Building and Safety by the 1,800th Certificate of Occupancy, fire service facilities and apparatus in proportion to the demand created by the development project, as required by the Los Angeles County Fire Department. These facilities shall include a fire station to be constructed within Planning Area 2B.

#114. If only one access is provided within Planning Area 3, the applicant shall install fire sprinklers within all residential units, provide an additional 25 foot width on the access road, and provide a helipad for fire service access for approval by the Los Angeles County Fire Department prior to issuance of occupancy permits.

PARKS AND RECREATION

EXISTING CONDITIONS

Upon annexation, the project area will be within the jurisdiction of the Palmdale Parks and Recreation Department.

The Ritter Ranch Specific Plan proposes the incorporation of three community and seven neighborhood parks within the project area. The project also includes an 18-hole golf course, Equestrian Center, an extensive multi-purpose trails system and over 7,500 acres of open space. The open space area includes seven Specialty Park sites which have been identified for additional recreational opportunities for the residents of the Ritter Ranch development and surrounding areas (see Section III, PROJECT DESCRIPTION for a discussion of the proposed park and recreation facilities).

Presently, there are no City Parks/Recreational facilities in the immediate vicinity to serve the project. Manzanita Park (5 acres in size) and Desert Sands Park (20 acres) are the closest parks to the project, and are 5 to 7 miles away, respectively. The Specific Plan proposes to leave approximately 7,600 acres as open space. Planning Areas 7 and 8 provide the vast majority of contiguous open space (5,168 acres). This area is slated to be set aside in its natural condition, providing opportunities for passive types of recreation.

IMPACTS

The City of Palmdale's Parks and Recreation Department has indicated that the proposed project will create impacts to parks and other recreational facilities. To offset these impacts the City has adopted a Park Ordinance, Ordinance 505 (amended by Ordinance 789). This ordinance sets forth the City's intent to obtain and develop parkland for City residents. It requires developers of residential units in the City to pay an impact fee or dedicate parkland to offset impacts to park and recreational facilities caused by increased population. At the present time, the impact fees are as follows:

Single Family Dwelling Unit	\$750 per bedroom constructed
Duplex or Triplex Dwelling Unit	\$820 per bedroom constructed
Apartment Dwelling Unit	\$772 per bedroom constructed

The Parks Department also offered the following generation factors: single-family dwelling units will use two acres for every 100 units; duplex or triplex will use two acres for every 160 dwelling units, and apartments will use two acres for every 200 dwelling units. Adequate local parks are anticipated with the Ritter Ranch project, although a funding mechanism is needed. Dedication and construction of parks and trails will be required to offset potential impacts to park service.

MITIGATION MEASURES

- #115. The applicant shall pay park fees or dedicate and construct the improvements for the proposed community, neighborhood and specialty park facilities shown in the Specific Plan as approved by the Director of Parks and Recreation pursuant to Ordinance 789.
- #116. Prior to issuance of grading permits for each area of the Ritter Ranch Specific Plan, the applicant shall provide appropriate safety and etiquette signs for all offstreet trails, particularly at trail parking facilities and trail segments with limited sight distance, in order to minimize safety hazards to bicyclists, pedestrians and equestrians. The nature, location and language for these signs shall be approved by the Director of Planning and the City Traffic Engineer. Said signs may also include other restrictions/warnings such as discouraging damage to natural resources.
- *#117. The applicant shall install lighting along pedestrian trails located within the urban areas to provide adequate public safety as determined appropriate by the City Traffic Engineer. However, lights shall be designed and located so that direct lighting is confined to the property, and lighting should not be of greater intensity (wattage) than otherwise necessary for public safety.
- #117a. The trails plan for the Ritter Ranch Specific Plan shall be reviewed for consistency with any trails plan or recreation management plan that may be prepared for the portion of the Angeles National Forest abutting the project area. Where the plans are inconsistent, the Ritter Ranch trails plan will be modified to conform with the Forest Service's plan.

SOLID WASTE SERVICE

EXISTING CONDITIONS

Solid waste disposal in Palmdale is presently handled by a private company, the Palmdale Disposal Company, which has served residential and commercial establishments in the city for 35 years. It has a dry landfill site, the Antelope Valley Public Dump at 1200 West City Ranch Road (immediately east of the project). The site covers approximately 57 acres of land and is expected to fill up by the mid 1990s (although a 75 acre landfill expansion area is currently under study). The landfill takes in garbage from surrounding areas in the Antelope Valley. It does not accept liquid waste and sludge. Approximately 84,000 tons of garbage are received by the landfill annually. There were approximately 44,000 tons of residential waste, 11,000 tons of commercial waste, and 23,000 tons of waste from industrial and miscellaneous sources. As of January 1991, the landfill had a remaining capacity of 2.5 million cubic yards.

In Palmdale alone, approximately 23,000 households and commercial businesses are served by the landfill, aside from private haulers who are charged a fee according to the type and volume of garbage brought in. The 1989 California Integrated Waste Management Act requires all jurisdictions to divert by recycling, etc., up to 25 percent of solid waste generated by 1995 and 50 percent by the year 2000. The Palmdale Disposal Company plans to expand to an adjacent 75 acre lot which will hold some 11 million cubic yards of solid waste.

The City is presently in the process of adopting a Source Reduction and Recycling Element and a Household Hazardous Waste Element to the City's General Plan. These documents will provide long-term guidance on the City's policies on solid waste disposal and recycling. This plan is applicable to the project and will act to reduce the volume of household hazardous materials generated by the project. These documents will recommend methods of diverting waste from the Antelope Valley Landfill, thereby prolonging the usable life of the facility.

IMPACTS

The Ritter Ranch project is estimated to generate approximately 43 tons per day of solid waste (based on 3.25 pounds per day per person and 10 pounds per employee per day). The project will result in a significant individual and cumulative increase in solid waste generation, and may generate hazardous materials that would require disposal in one of the

few remaining permitted Class I landfills. The 309 units from the Other Annexation Areas would result in approximately 1.36 tons/day of solid waste, which is not considered to be individually significant, but will contribute to the cumulative increases in solid waste described above.

MITIGATION MEASURES

#118. Information shall be provided, as reviewed and approved by the City, to business owners concerning the recycling services in the development area at the time of occupancy, at the time of occupancy. Said information shall identify nearby recycling centers, identify possible markets for recyclables in the area, and suggest to the business owners that they recycle glass, metal, paper, cardboard, and other materials to the maximum extent feasible at the time of occupancy.

*#119. The applicant shall distribute an educational pamphlet to homeowners at the time of occupancy describing the solid waste disposal problem, and methods of reducing solid waste impacts that are available to project residents as reviewed and approved by the City.

~~#120. Trash compactors shall be provided in each residential unit.~~

#121. The applicant shall provide solid waste recycling center(s) onsite to serve commercial, active recreation and residential areas, to the satisfaction of the City Director of Planning and Director of Public Works (to be verified at design-level review for each Development Application).

*#122. Where applicable, the applicant shall comply with the provisions of the City's Source Reduction and Recycling Element and the City's Household Hazardous Waste Element after those elements are adopted by the City Council.

GAS SERVICE

EXISTING CONDITIONS

Gas service to the Palmdale area is provided by the Southern California Gas Company (SCG). The SCG serves domestic and commercial uses in the planning area with nearly 20,000 customers.

IMPACTS

The project can be served from existing gas mains in the project vicinity. The SCG does not anticipate a major impact on overall system capacity, service to existing customers or the environment. Average consumption is estimated at 1,095 therms per year per single-family dwelling unit. This estimate is based on past system averages and does not encompass the possible effect of the State's new insulating requirements and consumer's efforts towards energy conservation. The availability of natural gas service is based upon present conditions of gas supply and regulatory policies. As a public utility, the Southern California Gas Company is under the jurisdiction of the California Public Utilities Commission (CPUC). Should the CPUC or other federal regulatory agencies take any action which affects gas supply or the condition under which service is available, gas service will be provided in accordance with the revised conditions.

MITIGATION MEASURES

No Mitigation Measures are required.

MAINTENANCE

EXISTING CONDITIONS

As of July, 1991, the City is responsible for the maintenance of 210 miles of streets, 44 acres of parkway and 67.5 acres of parkland, and detention basins. Maintenance labor is provided by a mix of City personnel and public service contracts. The City employs 29 maintenance employees who are predominately utilized for park and parkway maintenance. The remainder of the City maintenance services are contracted to Los Angeles County.

IMPACTS

The development of the Ritter Ranch site will significantly increase the City's street drainage, parkway and park maintenance liability. It is estimated by the City's Public Works Department that this project would increase the City's maintenance inventory and related annual maintenance costs in today's dollars by the following:

Maintenance	Unit	% Increased	Cost
Parks	121 acres	179	\$1,815,000
Parkways	15 acres	34	\$ 426,000
Streets	60 miles	29	\$ 600,000
Golf Course	184 acres		
Natural Area	7,601 acres		
Trails	85 miles		\$ 255,000
Drainage Basin	117 Acres		\$ 117,000
		Total:	\$3,213,000

A small part of the costs shown above will be offset by an increase in the City's general fund revenue generated by the development, but the increases will not provide a significant fraction of the maintenance costs created by the development.

In addition to the maintenance costs, maintenance support facilities to serve the project site and surrounding developments will be needed in the vicinity of the project. In addition, maintenance equipment will need to be acquired as necessary to accommodate project maintenance. Costs for construction of the facility (excluding property acquisition) and acquisition of maintenance equipment may exceed \$1.7 million. In addition, the Public Works Department has anticipated that as much as \$4 million will need to be spent within ten years following the project's completion to cover the costs of major public facility improvements and repairs which are not covered by the regular maintenance costs. These improvements to streets, parks, parkways, etc. may include overlays, seal coats, roof repairs and major facilities upgrades.

MITIGATION MEASURES

There are no feasible mitigation measures which can be placed on this project to alleviate significant project-related impacts to maintenance.

~~#123. The applicant shall pay a pro rata share of a facility (maintenance building and offices) which will support the maintenance of streets, parks, parkways, open space, and drainage facilities within the development, within the timeframe required by the Director of Public Works. The construction of the facility shall include acquisition of a site, site development, temporary facilities, and construction of permanent facilities in stages as required to provide the necessary maintenance service required by the development infrastructure.~~

~~#124. The applicant shall pay a fair share of and/or cause to be purchased certain maintenance equipment necessary for maintenance operations at such time as they are needed for maintenance of project infrastructure.~~

~~#125. The applicant shall agree to participate in an Assessment District or Community Facilities District for the maintenance of streets, drainage facilities, parks, parkways, trails and other public facilities.~~

RADIO COMMUNICATIONS

EXISTING CONDITIONS

The City of Palmdale uses radios to communicate with field personnel on a day to day basis, as well as during emergency situations. As of July, 1991, the City of Palmdale maintains one repeater on top of the City's Cultural Center. This repeater has a tower height of 50 feet and is capable of providing service to an area of operations within a ten mile radius. At the present time, the City utilizes 70 handheld radios and 13 vehicular radios to communicate with field employees.

The City is currently experiencing difficulty in communicating in parts of the City. Certain areas are beyond the range of the repeater, or within "shadow" areas where radio signals do not penetrate. As a result of this known deficiency, the City is in the process of defining the parameters of a City-wide study to determine existing capabilities and projected needs for radio communications.

The Ritter Ranch project site and the other annexation areas contain locations where the City's existing radio communications system is known to be ineffective.

IMPACTS

Development of the proposed project would exacerbate the existing communications problems experienced in the outlying portions of Palmdale. The development would increase the number of maintenance employees and field inspectors in the project area which, in turn, would increase the need for dependable radio communications. In cases of emergency situations where City staff is responsible for taking action, the lack of adequate radio communications could result in an impact to public health and safety.

MITIGATION MEASURES

There are no feasible mitigation measures which can be placed on this project to alleviate significant project-related impacts to radio communications.

~~#126. The developer shall provide their pro-rata share towards the implementation of the findings of the radio communications needs study currently being prepared by the City. This may include providing a site for the construction of a radio repeater, construction of the repeater, or providing funding for the acquisition and construction of such improvements, as determined necessary by the City's Emergency Services Coordinator.~~

Offsite Infrastructure Improvements

In addition to onsite facilities, the project applicant will be participating in the Amargosa Creek Improvement Project regional facilities, including water, sewer, electric, gas, stormdrain, telephone and cable lines (to be installed within the widened and realigned Elizabeth Lake Road).

UNAVOIDABLE SIGNIFICANT IMPACTS

The project is anticipated to result in significant individual and significant cumulative impacts to police service (potentially), school (potentially), water, library facilities, solid waste, maintenance, and radio communications.

V. LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

V. LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

A. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

If the proposed Ritter Ranch Specific Plan and/or the Ritter Ranch area is developed, a variety of short-term and long-term impacts will occur on both local and regional levels. During construction, existing vegetation and landscaping on-site would be removed, and portions of surrounding lands would be temporarily impacted by dust and noise over the project buildout. Short-term erosion may occur during grading. There will also be an increase in dust and vehicle emissions, caused by grading and construction activities. Short-term traffic impacts are anticipated to include increased traffic volumes due to commuting construction workers. Local traffic will also be impaired by road closures, detours and the presence of grading vehicles during construction activities. These disruptions, however, are temporary, and can be mitigated to a large degree (see Section IV, DESCRIPTION OF ENVIRONMENTAL SETTINGS, IMPACTS AND MITIGATION MEASURES). It should be noted that project construction is anticipated over the next 20 years. Therefore, short-term construction impacts are anticipated to occur sequentially in various portions of the site until ultimate buildout is reached.

The long-term effect of the project proposal and subsequent development will be to eventually convert the site into residential, commercial and recreational uses. As a result of this process, the characteristics of the physical, biological, cultural, aesthetic, and socioeconomic aspects of the human environment will be impacted, as discussed in Section IV. Consequences of this development include: loss of habitat, a significant change in the character of the area, increased local traffic volumes, incremental degradation of local air quality, additional noise created by traffic generated by residential units and commercial area patrons, incrementally increased demands for public services and utilities, and increased energy and natural resource consumption.

The current proposal will benefit the project area by providing future, residential, recreational, and commercial uses. Postponement of development on the project site would delay the recreational and commercial uses which are presently needed within the City of

Palmdale and surrounding area. Future use of the project site would most likely be similar to the land uses currently proposed.

Ultimate development of the project site would create long-term environmental consequences that are connected with any transition in land use. The proposed annexation of Ritter Ranch and 449 acres of associated area to the City of Palmdale will permanently increase the land area in the City. However, the proposed project will benefit the community through tax revenue and related development fees and benefit the community and region by providing residential areas. In addition, the project will provide extensive recreation and open space areas for use by Ritter Ranch and the Greater Palmdale area resident. In these ways, it is anticipated that the proposed project will contribute to the long-term productivity of the City and surrounding areas.

B. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

Approval of the proposed project would cause irretrievable environmental changes. Implementation of the proposed project would result in the following significant environmental changes:

1. Commitment of land which will be physically altered to create various residential, commercial, institutional and recreational land uses and associated infrastructure.
2. Removal of the existing botanical cover in order to develop various aspects of the project.
3. Alteration of the human environment as a consequence of the development process. The project, which represents a commitment of land to residential, commercial, institutional and recreational uses, would increase traffic levels and noise on surrounding roadways.
4. Increased requirements for public services and utilities by the project's land uses representing a permanent commitment of these resources.
5. Utilization of various raw materials will occur, such as lumber, sand and gravel. Some of these resources are already being depleted worldwide. The

energy consumed in developing and maintaining the site for urban use may be considered a permanent investment.

6. Incremental increases in traffic levels in the surrounding circulation system, resulting in associated increases in noise levels and incremental degradation of local air quality.

C. GROWTH-INDUCING IMPACTS OF THE PROPOSED ACTION

Please note that an extensive discussion of growth-inducing and cumulative impacts in southwest Palmdale is provided in the Amargosa Creek Improvement Project Phase II Draft EIR (currently in public review and available for review at the City of Palmdale Planning Department).

The following growth discussion is based on project consistency with the City of Palmdale Draft General Plan and regional growth forecasts (SCAG Draft Baseline Projections). "A project would be inconsistent if it did not conform, or if it used a disproportionately large portion of the forecasts growth increment. The degree of consistency is a matter of judgement. Inconsistency is considered a significant adverse impact."¹

Implementation of the proposed project would ultimately result in the development of 7,200 dwelling units and approximately 692,135 square feet of commercial retail uses. The population increase for Ritter Ranch is anticipated to be approximately 19,440 persons by the year 2010 (20 year buildout)². The population increase is estimated based on the City of Palmdale standard of 2.7 persons per household. Growth forecasts by SCAG for the City of Palmdale anticipate a population of approximately 98,618 by the year 2010³. Based on current Los Angeles County zoning, the Ritter Ranch and associated annexation areas would result in approximately 5,470 units and 14,770 persons (one unit per 2 acres and 2.7 persons per unit). The combined year 2010 City plus project annexation areas population is therefore projected at 113,390 (it should also be noted that the City is currently updating its General Plan and including additional annexation areas, although these associated potential population and employment increases are not included in any SCAG or AQMP

¹ Air Quality Handbook for Preparing EIRs. SCAQMD. Revised April 1987 (page III.22).

² Ritter Ranch Draft Specific Plan. Ritter Park Associates, August 5, 1991 (p. 4-45).

³ SCAG 2010 Population Projections.

growth forecasts). This represents a 100% increase (56,914 persons) compared to the January 1, 1990 City population of 56,476 (existing population in the project area is negligible). The proposed project would represent approximately 26% of the forecasted increase, which is considered a "disproportionately large portion" of the growth forecast. The project total dwelling units will exceed the existing Los Angeles County General Plan and Zoning limits, causing the resulting population increase to have significant growth inducing impacts.

The Other Annexation Areas provide opportunities for construction of up to 309 single-family dwelling units. When considered alone, the growth-inducing impact of these dwelling units is insignificant. However, when considered cumulatively with the Ritter Ranch project, these units will contribute to the significant increase in area-wide growth.

The project proposes 73 acres of neighborhood commercial uses which are not presently allowed in existing Los Angeles County planning and zoning designations. Commercial land uses have been designed to specifically meet the demands of the projected population of Ritter Ranch. Due to the relatively small scale, it is assumed the majority of the employees generated by the proposed project already reside in the City of Palmdale or will be new residents of the Ritter Ranch development (estimated at 2,268 employees). Therefore, office and retail commercial land uses are not considered a significant growth inducing impact. Refer to Section IV.B, AIR RESOURCES for a discussion on Ritter Ranch jobs/housing balance.

The structural and design characteristics of the proposed project and required infrastructure may be considered growth inducing. The demands for existing public services and utilities will be incrementally increased with development of the project. The extension of existing infrastructure, such as water and sewer lines through the proposed project, may allow more rapid development of the presently undeveloped areas of Leona Valley than would otherwise be possible. Extension of existing facilities would be a significant incremental growth inducing impact.

D. CUMULATIVE IMPACTS

This section has been included in the EIR to address the cumulative impacts associated with projects currently approved and proposed in the vicinity of the proposed Ritter Ranch Specific Plan and Annexation areas (refer to Table 26, FORECAST BUILDOUT LAND USE, for a list of cumulative projects taken into consideration for the cumulative impacts analysis as well as the traffic analysis). In accordance with CEQA Guidelines Section 15130,

cumulative impacts shall be discussed when they are significant. This discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great a detail as is provided for the effects attributable to the project alone. The discussions should be guided by the standards of practicality and reasonableness. The following elements are necessary in an adequate discussion of cumulative impacts:

1. Either:
 - a. A list of relevant past, present and reasonably-anticipated future projects, producing related or cumulative impacts, including those projects outside the control of the Agency, or
 - b. A summary of the expected environmental effects in an adopted General Plan or related planning document which is designed to evaluate regional or area-wide conditions.
2. A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available.
3. A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable options for mitigation or avoiding any significant cumulative effects of the proposed project.
4. With some projects, the only feasible mitigation for cumulative impacts may involve the adoption of ordinance or regulations rather than the imposition of conditions on a project-by-project basis.

Table 26, FORECAST BUILDOUT LAND USE, provides estimated General Plan buildout of the project area (southwest Palmdale), as documented in the July, 1990 DKS study. Exhibit 21, CUMULATIVE PROJECT LOCATIONS, indicates the location for development areas in southwest Palmdale. This table is supplemented by Table 27, SUMMARY OF CUMULATIVE PROJECTS, which provides a list of proposed projects within a three mile radius that are expected to contribute to cumulative impacts in the project area (obtained from the City of Palmdale Planning Department files and County of Los Angeles Regional Planning Department).

Table 26
FORECAST BUILDOUT LAND USES

Project Area	Single-Family (Units)	Multi-Family (Units)	Retail (Acres)	School (Students)
Villages of Ritter Ranch	6,305	895	63.0	1,800
City Ranch North	400			600
City Ranch South	3,558	1,642	17.9	2,400
Valley Ranch	1,137		3.8	600
South Elizabeth Lake Road	1,120			
Santa Fe Hills	684	1,466		1,200
Ana Verde	850			
Leona Valley	860			600
Kinoshita	412			
Lane Ranch	400			
Sagebrush	700			
Messer Ranch	320			
City Thrift	270			600
Godde Hill	250			
San Andreas	150			
Bouquet Canyon	135			
North Elizabeth	81			
North Santa Fe	50			
Northridge West	40			
Portal Ridge South	50			
Stable Area	35			
Peterson	10			
Lazy T	10			
TOTAL	17,827	4,003	84.7	7,800

TOTAL RESIDENTIAL: 21,830 D.U.

Source: DKS (July, 1990)

Note: Forecast buildout land uses are based on a project list prepared in July 1990. Minor subsequent changes in dwelling unit numbers have occurred, significantly modify the above estimates or the end result of the cumulative analysis.

CUMULATIVE PROJECT LOCATIONS

- | | | |
|----------------------------|-------------------|-----------------------|
| 1 Villages of Ritter Ranch | 9 Kinoshita | 17 North Elizabeth |
| 2 City Ranch North | 10 Lane Ranch | 18 N. Sante Fe |
| 3 City Ranch South | 11 Sagebrush | 19 Northridge West |
| 4 Valley Ranch | 12 Messer Ranch | 20 Portal Ridge South |
| 5 S. Elizabeth Lake Road | 13 City Thrift | 21 Stable Area |
| 6 Sante Fe Hills | 14 Godde Hill | 22 Peterson |
| 7 Ana Verde | 15 San Andreas | 23 Lazy T |
| 8 Leona Valley | 16 Bouquet Canyon | |

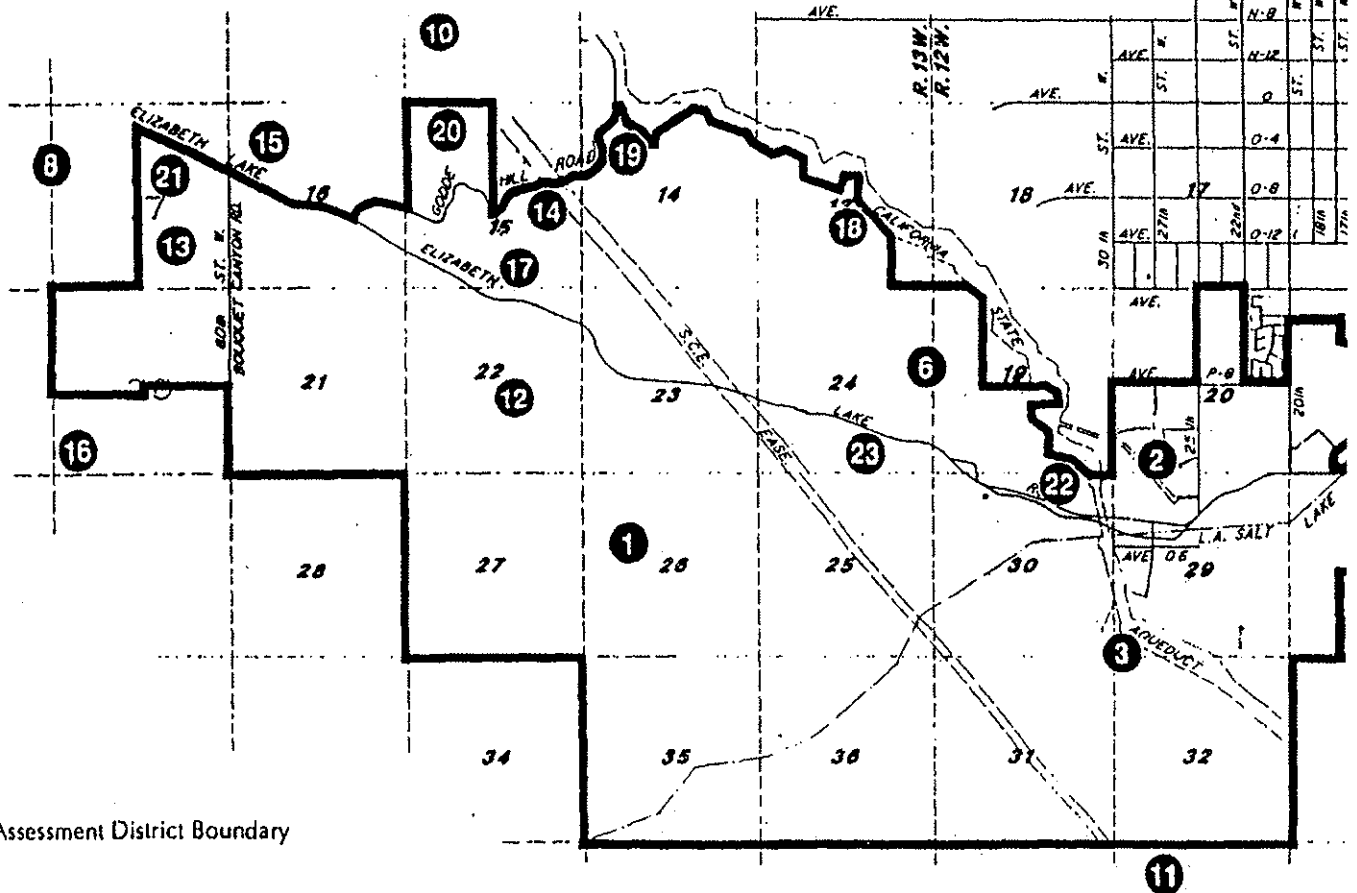


Exhibit 21

Cumulative



Robert Bein, William Frost & Associates
501 JN 26103-3542

Table 27

SUMMARY OF CUMULATIVE PROJECTS

<u>PROJECT #</u>	<u>CASE NO.(DATE)</u>	<u>CUMULATIVE PROJECTS LOCATION</u>	<u>REQUEST</u>
1.	TT 46755 (4-4-89)	Northeast corner of Avenue R-8 and 60th Street West	Subdivide into 17
2.	PZ 88-12 (5-4-89)	North of Elizabeth Lake Road between 25th and 30th Streets West	Prezone to R-1-7
3.	ZC 88-28 (5-15-89)	Northeast corner of 53rd Street West and Avenue M-8	Rezone from A-
4.	TT 46582 (5-15-89)	Southeast corner of 53rd Street West and Avenue M-8	Subdivide 10.17 ;
5.	VTT 44526 (6-1-89)	Southeast corner of 20th Street West and Elizabeth Lake Road	Subdivide 40 acr
6.	TT 47513 (6-1-89)	West of 45th Street West, north of Avenue N-8.	Subdivide 10.04 ;
7.	PZ 89-2 (7-6-89)	Northeast corner of 55th Street West and Avenue N	Prezone from A-
8.	TT 46862 (7-20-89)	Southwest corner of Avenue M-8 and 60th Street West	Subdivide 10 acr
9.	CUP 89-16 (7-20-89)	South side of Avenue R, 340 feet west of 25th Street West	Construct pre-scl
10.	TT (7-20-89)	North side of Avenue N, 990 feet east of 55th Street West	Subdivide 10 acr
11.	TT 47709 (8-17-89)	North side of Avenue N, 660 feet east of 55th Street West	Subdivide into 25

Table 27
(Continued)

SUMMARY OF CUMULATIVE PROJECTS

<u>PROJECT #</u>	<u>CASE NO.(DATE)</u>	<u>CUMULATIVE PROJECTS LOCATION</u>	<u>REQUEST</u>
12.	TT 47062 (9-21-89)	Northwest corner of Avenue P-8 and 22nd Street West.	Subdivide 4.84 ac
13.	ZC 89-11 (9-21-89)	Northeast corner of Avenue N-8 and 53rd Street West.	Change zone from
14.	TT 46017 (10-5-89)	Northeast corner of Avenue P-8 and 20th Street West.	Subdivide 15 acre
15.	TT 47504; ZC 89-14 (10-19-89)	West and Avenue N-8.	Northwest corner Subdivide 30 acre zone from A-1-1
16.	TT 46452; ZC 89-35 (11-2-89)	Northwest corner of Elizabeth Lake Road and 25th Street West	Subdivide 215.6 a
17.	TT 48096 (12-21-89)	Northeast corner of Avenue N-8 and 55th Street West.	Subdivide 15 acre
18.	TT 47800; ZC 89-26 (12-21-89)	Northwest corner of 60th Street West and Avenue N	Subdivide 68 acre change zone from R-1-13,000
19.	TT 48035; ZC 89-29	Southeast corner of 70th Street West and Avenue M	Subdivide 30.7 ac change zone from

The following is a discussion of cumulative impacts. Quantification of cumulative impacts is based on buildout General Plan forecasts shown in Table 26 25. In addition, discussions of regional impacts are provided in the County of Los Angeles General Plan and SCAG's Impact Assessment: Draft Baseline Projections (March, 1987). Although the City of Palmdale General Plan Update EIR is presently in process, substantial cumulative impact data is available at the City Planning Department, particularly regarding the Draft General Plan elements and City-wide traffic model. Also, specific data for impacts of Amargosa Creek flood control improvements is discussed in environmental documents available for review at the City of Palmdale Planning Department.

Earth Resources

Significant cumulative effects resulting from the project and development in the vicinity of the project and surrounding areas include erosion and loss of open space and the alteration and/or elimination of natural surface water drainages. Short-term increases in erosion will occur due to grading activities occurring onsite and in surrounding development areas. Project implementation in combination with the "Phase I and II" Amargosa Creek Improvement projects and others will also result in a cumulative loss of sand and gravel resources used in project construction. These cumulative impacts are considered significant; however, they will be mitigated on a project-by-project basis. Mitigation for these projects will likely be similar in nature to the Ritter Ranch project; mitigation may include, but will not be limited to, erosion control measures, remedial grading techniques, landform grading, and setbacks or special foundations for seismic areas.

Air Resources

The proposed project will, in combination with other pending or approved projects, have a significant cumulative air quality impacts on the already unhealthful regional air quality in the Antelope Valley due to increased vehicle travel and fossil fuel consumption. Secondary sources of air emissions which will result from the proposed projects will also have a significant impact on regional air quality as they are generally small on an individual project basis but are cumulatively significant. These sources include temporary emissions during construction, increased electrical power demand from regional generating stations, onsite combustion of natural gas, and various population related sources such as emissions from gas stations, dry cleaners, fire places, and barbecues. Total emissions for cumulative projects listed in Table 26 25 are estimated at over 30,000 pounds per day of Carbon Monoxide (approximately 1.6% of the basin's year 2010 forecast emissions) and over 2,800 lbs/day of Reactive Organic Compounds. Vehicle emission impacts can be mitigated individually.

through requiring each project to include trip reduction design features (bus turnouts, pedestrian/bicycle facilities and balance of land uses). Regulation XV requires employers of more than 100 persons to implement trip reduction plans including measures such as carpools, vanpools, bus transportation and contributions to programs such as the "commuter computer". Onsite stationary sources (industrial and manufacturing) may result in local cumulative emission impacts, however, cumulative air quality impacts are anticipated to be mitigated by complying with South Coast Air Quality Management District "Rules and Regulations" and by following City General Plan land use designations.

Water Resources

Future development within the project area (including areas surrounding the project site) will increase impervious surfaces, thereby reducing groundwater recharge and increasing the potential for flooding in the area. Cumulative development in the project area will result in alterations to the drainage pattern and flow rates in the project vicinity. Impacts are considered to be significant, however, they will be mitigated on a project-by-project basis, including implementation of the City of Palmdale Drainage Management Plan and the City of Palmdale Drainage Master Plan. The City's Master Drainage Plan includes improvements to Amargosa Creek which flows easterly along Elizabeth Lake Road and impacts the northern portion of the project area. Implementation of these improvements will assist in alleviating cumulative drainage impacts of development in the project area.

Cumulative development in the project area and areas surrounding the project site will also increase the quantities of urban pollutants that enter local drainages. These impacts can be reduced to an insignificant level through transportation management and proper landscaping design and maintenance methods.

Biological Resources

Implementation of the proposed project and future development in the surrounding area will result in incremental decreases in the quantity and range of regional biological resources. These impacts could be mitigated on a project-by-project basis by funding and the implementation, restoration and enhancement of the existing rare and endangered plant communities. Although this would mitigate the impacts to biological resources, the cumulative loss of natural resources is considered a significant effect.

Noise

The noise impact analysis for the proposed project indicates that a marginally cumulative significant noise impact will result from project-related traffic on receptors within more heavily developed areas of Palmdale and near heavily traveled arterials within Ritter Ranch itself. In addition, increased traffic will alter the rural character of the presently perceived noise environment to a noise environment more typical of an urban area. Table 14, TRAFFIC NOISE IMPACTS, summarizes the 24-hour CNEL levels at 100 feet from the roadway edge along a number of Palmdale area roads for existing conditions, for the future with the proposed project and with other area cumulative project traffic growth based on traffic volumes in the Ritter Ranch traffic impact study (June 1990). Buildout traffic conditions are estimated to result in the 65 CNEL extending approximately 146 feet from Elizabeth Lake Road right-of-way, east of Bridge Road. Implementation of the mitigation measures listed in Section IV.E, NOISE, will reduce onsite noise impacts due to the proposed project to less than significant levels. Impacts to offsite noise levels will be significant due in part to the cumulative noise contribution from Ritter Ranch. Cumulative noise impacts are typically mitigated individually by each project providing adequate onsite attenuation measures and jointly through noise walls for new residential developments adjacent to arterial roadways.

Aesthetics/Light and Glare

Aesthetic impacts associated with proposed development in the project area include dust generation and the presence of construction vehicles and equipment. These impacts are anticipated to be reduced to less than significant levels as projects reach completion and proper mitigation measures are implemented. Particular care will be taken in development phasing and monitoring to reduce these impacts in consideration of the estimated 20 years required to achieving project buildout.

Development of the project site and surrounding areas will ultimately result in the increased urbanization of the vicinity and loss of open space in the area. As a result, views of the area will be more characteristic of an urban rather than rural area as residential units, streets/roads, and infrastructure lighting will replace present views of open space. These impacts can be mitigated individually to less than significant levels on a project-by-project basis with implementation of proper mitigation measures such as those listed in Section IV.F, AESTHETICS/LIGHT AND GLARE.

Significant light and glare impacts to the communities of Lancaster, Palmdale and Leona Valley, and the surrounding areas are anticipated to result as a direct consequence of cars, lights, windows and other types of reflective material associated with development. These impacts can be reduced to less than significant levels on a project-by-project basis through the implementation of mitigation measures such as those listed in Section IV.F, AESTHETICS/LIGHT AND GLARE.

Land Use

The proposed project combined with other approved or proposed development will serve to encourage development of presently undeveloped, rural land, which will result in a cumulative impact to the overall character of the area. Presently rural areas will be replaced with higher intensity, urban land uses. This increased urbanized environment will result in unavoidable cumulative impacts such as loss of open space, increased human activity and increased traffic and noise. As cumulative land use impacts are difficult to individually mitigate, mitigation is most effective through regional programs establishing open space and park areas (such as the General Plan process).

Public Health and Safety

Based upon the historic use of the Ritter Ranch property, there is the potential for the presence of hazardous materials at several locations within the site. Development of the project vicinity may identify additional hazardous material locations which could require clean-up and disposal. In addition, the resulting urbanization of the area due to cumulative development may introduce businesses that could use or store hazardous materials. Risks associated with these impacts can be mitigated on a site-by-site basis. Compliance with local, state and federal regulations regarding hazardous materials as well as implementation of the proposed Palmdale Hazardous Waste Management Plan will reduce these risks to less than significant levels.

Traffic and Circulation

The proposed project, in combination with cumulative development will incrementally increase local traffic volumes. The Ritter Ranch development is anticipated to generate approximately 89,180 Average Daily Trips (ADT) with 6,320 and 8,470 trips occurring during the A.M. peak and P.M. peak hours, respectively. The Other Annexation Areas are estimated to generate 3,100 ADT. Based on City-wide traffic modelling and the project traffic report (Appendix H), cumulative development is anticipated to exceed Level of

Service D or worse on portions of Elizabeth Lake Road and 10th Street West (refer to Table 28, FORECAST BUILDOUT TRAFFIC VOLUMES AND LEVELS OF SERVICE). Table 28, which is a worst-case analysis based on General Plan buildout, indicates that cumulative development will result in significant regional traffic impacts in the Southwest Planning Area of Palmdale.

Cumulative traffic impacts are mitigated by individual projects contributing pro-rata portions toward constructing ultimate road configurations adjacent to their properties as provided in the City's Circulation Element. Projects may also be required to provide additional improvements such as the dedication of right-of-way, addition of arterial connections, and the addition of lanes. Improvements for nonadjacent roads and/or traffic facilities, such as traffic lights, would require contributions through Assessment District 90-1 or through traffic impact fee assessments. However, if the offsite improvements are not constructed by the time the development starts to generate traffic, there could be a significant cumulative impact to the existing circulation system.

Cultural Resources

Cumulative development may result in increased impacts to cultural and scientific resources if not properly mitigated. Unrecorded archaeological and/or paleontological resources may be damaged by grading and construction activities. These potential impacts can be mitigated on a project-by-project basis through requiring archaeological and paleontological surveys in instances where potential for cultural or scientific resources exists, and by requiring field monitoring during grading activities. However, this may constitute a significant cumulative loss of cultural resources available for future study which are located in their original place.

Public Services and Utilities

Cumulative impacts resulting from the project and additional development in the region will result in increased demands upon existing public services and utilities. Assessment fees and taxes required of developers and future occupants are expected to ultimately reduce these impacts to less than significant levels, although short-term significant effects may occur until new facilities are available (refer to Table 29, CUMULATIVE PUBLIC SERVICE AND UTILITY IMPACTS and Exhibit 21, CUMULATIVE PROJECT LOCATIONS for additional information).

Table 28

FORECAST BUILDOUT TRAFFIC VOLUMES AND LEVELS OF SERVICE

Roadway	Striping/ Geometrics	Facility Type	Capacity	Volume	V/C ¹	LOS ²
Santa Fe Hills Dr. Elizabeth Lake Rd./25th St. W.	4 LANES	DIV. MINOR	28,000	14,400	0.51	A
Elizabeth Lake Rd. West of Leona Rd.	2 LANES	MAJOR	15,000	14,700	0.98	E*
Leona Valley/Bouquet Canyon Rd.	2 LANES	MAJOR	15,000	20,200	1.35	F*
Bouquet Canyon Rd./Godde Hill Rd.	4 LANES	DIV. MAJOR	36,000	28,900	0.80	C
Godde Hill Rd./Santa Fe Hills Dr.	2 LANES	DIV. MAJOR	18,000	16,900	0.94	E
Santa Fe Hills Dr./Ranch Center Dr.	4 LANES	DIV. MAJOR	36,000	14,400	0.40	A
Ranch Center Dr./Bridge Rd.	4 LANES	DIV. MAJOR	36,000	21,000	0.58	A
Bridge Rd./25th St. W.	6 LANES	DIV. U. MAJOR	60,000	53,100	0.89	D*
25th St. W./10th St. W.	6 LANES	DIV. U. MAJOR	60,000	59,600	0.99	E*
20th St. W./10th St. W.	6 LANES	DIV. U. MAJOR	60,000	67,800	1.13	F*
Palmdale Boulevard 10th St. W./Antelope Valley Fwy.	8 LANES	DIV. MAJOR	72,000	63,000	0.88	D
City Ranch Rd. Ritter Ranch Rd./Ranch Center Dr.	2 LANES	DIV. MINOR	14,000	6,500	0.46	A
Ranch Center Dr./Bridge Rd.	4 LANES	DIV. MINOR	28,000	14,800	0.53	A
Bridge Rd./20th St. W. Alignment	4 LANES	MINOR	24,000	18,200	0.76	C
29th St. W. Alignment/Tierra Subida Ave.	4 LANES	MINOR	24,000	21,600	0.90	E
Avenue R Tierra Subida Ave./Division St.	6 LANES	DIV. MAJOR	54,000	44,200	0.82	D*
Ritter Ranch Rd. Godde Hill Rd./City Ranch Rd.	2 LANES	DIV. MAJOR	18,000	16,300	0.91	E*
South of Elizabeth Lake Rd.	2 LANES	DIV. MAJOR	18,000	18,200	1.01	F*
40th St. W. Alignment/Ranch Center Dr.	4 LANES	DIV. MAJOR	36,000	27,700	0.77	C
Ranch Center Dr./Bridge Rd.	4 LANES	DIV. MAJOR	36,000	33,800	0.94	E*
Bridge Rd./20th St. W. Alignment	6 LANES	DIV. MAJOR	54,000	38,900	0.72	C
20th St. W. Alignment/Tierra Subida Ave.	6 LANES	DIV. MAJOR	54,000	50,900	0.94	E*
Avenue S Tierra Subida Ave./Antelope Valley Fwy.	6 LANES	DIV. U MAJOR	60,000	37,500	0.63	B
Bouquet Canyon Road South of Elizabeth Lake Rd.	4 LANES	DIV. MINOR	28,000	8,800	0.31	A
West of City Thrift	2 LANES	MINOR	12,000	7,500	0.63	A
Godde Hill Rd. 60th St. W./Elizabeth Lake Rd.	4 LANES	MAJOR	30,000	28,000	0.93	E*
Ranch Center Dr. Elizabeth Lake Rd./City Ranch Rd.	2 LANES	DIV. MINOR	14,000	7,700	0.55	A
City Ranch Rd./Ritter Ranch Rd.	2 LANES	DIV. MINOR	14,000	9,300	0.66	B
Bridge Rd. Elizabeth Lake Rd./City Ranch Rd.	4 LANES	DIV. MINOR	28,000	30,000	1.07	F*
City Ranch Rd./Ritter Ranch Rd.	4 LANES	DIV. MINOR	28,000	22,300	0.80	C
25th St. West Ave. P-8/Elizabeth Lake Rd.	6 LANES	MAJOR	45,000	42,400	0.94	E*
10th St. West Ave. P-8/Palmdale Blvd.	6 LANES	DIV. U. MAJOR	60,000	58,900	0.98	E*

Table 28 (Continued)

FORECAST BUILDOUT TRAFFIC VOLUMES AND LEVELS OF SERVICE

Roadway	Striping/ Geometrics	Facility Type	Capacity	Volume	V/C ¹	LOS ²
Tierra Subida Ave.						
Palmdale Blvd./S. of Palmdale Blvd.	6 LANES	DIV. MAJOR	54,000	20,500	0.38	A
South of Palmdale Blvd./Ave. R	6 LANES	DIV. MAJOR	54,000	39,300	0.73	C
Ave. R/Ave. S	4 LANES	DIV. MAJOR	36,000	27,900	0.78	C
Ave. S/Barrel Springs Rd.	2 LANES	MINOR	12,000	10,600	0.88	D

Note: ¹Volume to Capacity Ratio
²Level of Service
⁴Exceeds acceptable Level of Service

Source: Circulation and Transportation Needs Study for Palmdale Southwest Planning Area, DKS Associates, July 1990, Table 4-2

Table 29

CUMULATIVE PUBLIC SERVICES AND UTILITIES IMPACTS

Description of Service Utility	Generation Factor	Estimated on
Natural Gas	Single Family Residence: 6,658 ft ³ /mo/du ¹	118,61
	Multi-Family Residence: 4,025 ft ³ /mo/du	16,111
	Retail: 2.9 ft ³ /mo/sf	2,675
Electricity	Residential: 6,081 Kw ² /du/yr	132,71
	Retail: 11.8 Kw/sf ³ /yr	10,88
Police	Residential: 0.89 deputy/1,000 population	53 de
	Retail: 1 deputy/1,000 population	60 de
Sewage	160 gal/day/EDU	3.5 M
Water	0.5 gal/min/person ⁴	30,00
Solid Waste	3.25 lbs/day/person	194,8
Library	.80 sf/person	47,6
	2.5 volumes/person	148,9
	0.5 staff/1,000 population	30 st

¹ du = Dwelling Unit (21,830 DU)² Kw = Kilowatt³ sf = square feet (0.25 FAR assumed)⁴ Does not include fireflow or storage

Source: Phone conversations with applicable public service or utility agency (based on 21,830 D.U. and 2,729 persons/D.U.).

Utilities such as electricity, natural gas and communication systems will experience increased demand; however, developer and service fees typically used to fund necessary improvements will reduce these impacts to less than significant levels. Potential cumulative impacts to public services such as schools, libraries, police, fire and emergency services may be reduced through funding mechanisms or construction of facilities to provide the additional facilities necessary to absorb the increased demand. Short-term impacts such as crowding within existing schools may occur due to uncertainty of the time frame and availability of funds for new schools which may create a time lag for their construction, and increased response time for emergency services may occur until new facilities are available. Significant cumulative impacts may result in the areas of water supply, sewage treatment capacity and solid waste disposal, due to associated regional issues and limited resources (water, treatment capacity, and landfills, respectively).

With regards to groundwater supply, several different studies were reviewed that appear to have conflicting opinions concerning the ability of the aquifer to accomodate additional growth in the Antelope Valley. The following studies were reviewed with respect to groundwater supply: Proposals for Antelope Valley Subsidence and Groundwater Resources Evaluation, prepared by U.S.G.S., May 30, 1991; Water Resources Study of the Antelope Valley, prepared by the Antelope Valley United Water Purveyors, April, 1991; Report on Existing and Projected Water Demands and Source of Supply for the Antelope Valley, prepared by Los Angeles County Waterworks Districts, March, 1991; Ground Water Supply Study for the Ritter Ranch, Antelope Valley, Los Angeles County, California, prepared by C.B. Loundagin, February, 1990; Hydrogeologic Assessment for Construction of New Emergency Supply Water Well, Antelope Valley, Los Angeles County, prepared by Richard Slade, August 1989; Geohydrology of the Antelope Valley Area, California, and Design for a Ground-Water-Quality Monitoring Network, prepared by U.S.G.S., 1987; and Planned Utilization of the Water Resources in the Antelope Valley, prepared by the State of California Department of Water Resources, October, 1980.

The conclusions expressed in the various groundwater studies demonstrate that a disagreement exists between experts on groundwater supply, groundwater recharge and, safe yield from the aquifer. For example, the report prepared by Los Angeles County Waterworks District, March 1991, concludes that the Valley's existing water resources (groundwater and state-imported water) were sufficient to support SCAG's 2010 population projection for the Antelope Valley. However, the water resources study prepared by the Antelope Valley United Water Purveyors concluded that the overdraft in the aquifer in 1990 was at least 60,500 acre-feet, and implied that additional growth would jeopardize the availability of water in the future. Two of the studies reviewed discussed water levels in

various locations of the aquifer; in one study location, well levels were rising, in the other, water levels were falling (Loundagin, Slade). Also, estimates of the annual recharge to the aquifer, and therefore, the safe yield, was reported to be 76,000 acre-feet, 58,000 acre-feet and 40,700 acre-feet in the various studies.

However, Los Angeles County Waterworks District No. 34, the water purveyor for the project, has repeatedly indicated that there is sufficient water supply using a conjunctive use policy to accommodate this project, as well as other planned development. The Waterworks District has described their conjunctive use policy in the following manner: state water project water will be used in times when water is plentiful to recharge the groundwater basin; in times when State water project water is scarce, the groundwater stored in the aquifer will be withdrawn and used as the primary source of supply. Application of this policy is anticipated to keep the groundwater levels above the 1980 historic low so as to preserve the capability to replenish the aquifer while at the same time providing sufficient water to serve the growing needs of the Antelope Valley.

Therefore, based upon the evidence presented, development of the project, with implementation of the required mitigation measures, will not result in significant cumulative effects on the groundwater supply.

Maintenance

The proposed project, along with the cumulative development, will also increase the need for maintenance services. According to the City's Public Works Department, the current annual cost of maintenance is summarized as follows:

Maintenance Area	Annual Cost	Unit
Parks	\$15,000	Acre
Parkways	\$28,400	Acre
Boulevards	\$15,400	Acre
Streets	\$10,000	Mile
Trails	\$ 3,000	Mile
Drainage Basins	\$ 1,000	Acre

(Source: Phone conversations with applicable public service or utility agency (based on 21,830 D.U. and 2,729 persons/D.U.)

As development in the area continues, the addition of new street mileage will necessitate the diversion of more City general fund revenues to maintenance operations. A small part of these costs will be offset by an increase in general fund revenue generated by the development, but the increases will not provide a significant fraction of the maintenance costs created by Ritter Ranch and the surrounding developments. This shortfall could result in a significant cumulative fiscal impact to the City if additional revenue sources are not identified for maintenance purposes.

VI. ALTERNATIVES TO THE PROPOSED PROJECT

VI. ALTERNATIVES TO THE PROPOSED PROJECT

In conformance with CEQA Guidelines Section 15126.d, the following discussion focuses on a range of project alternatives which could feasibly attain the basic objectives of the proposed project (a master-planned residential community with recreational and neighborhood commercial land uses). In addition, it is intended to evaluate the merits of each alternative, relative to the proposed project.

The alternatives discussion shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impede to some degree, or make more costly, the attainment of project objectives. The following alternatives to the proposed project are evaluated below: "No Development" alternative, "No Project/Existing Zoning" alternative, "Reduced Scale" alternative, "Residential Only" alternative, and "Alternative Site" alternative (refer to Table 30, COMPARISON OF RITTER RANCH PROJECT IMPACTS TO ALTERNATIVE IMPACTS, for a side-by-side comparison of the alternatives).

A. "NO DEVELOPMENT" ALTERNATIVE

The "No Development" alternative would not result in any of the environmental impacts associated with the proposed construction and development of approximately 10,625 acres of residential, commercial, institutional and recreational uses (no development plans have been proposed for the 309-acre portion of the Other Annexation Areas zoned for rural residential). Implementation of this alternative would retain the existing natural open space and undeveloped character of the project site and would avoid any adverse physical or environmental impacts associated with development. Existing geologic, hydrologic, biological, cultural and aesthetic characteristics of the project site would remain the same. Traffic, air quality and noise impacts due to project construction and increased traffic would not occur with the "No Development" alternative. Implementation of this alternative will not alter the existing land use designation or zoning on the project site. In addition, this alternative would not result in an increased population or demand for public utilities and services.

Implementation of this alternative would retain cattle grazing on the Ritter Ranch property. Potential revenues generated by project construction and occupation would be forfeited. In addition, substantial local and regional recreational uses and regional infrastructure improvements would not be provided. The "No Development" alternative would be environmentally preferable to the proposed project. However, this alternative is not

Table 30

COMPARISON OF RITTER RANCH PROJECT IMPACTS TO ALTERNATIVES' IMPACTS

Environmental Impact Area	Proposed Ritter Ranch Project	No Development Alternative	No Project/ Existing Zoning Alternative	Reduced Scale Alternative	Resident Only Alternat
Earth Resources	Yes	No	Yes (less)	Yes (less)	Yes
Air Resources	Yes	No	Yes (less)	Yes (less)	Yes (les
Water Resources	Yes (Drainage)	No	Yes (less)	Yes (less)	Yes
Biological Resources	Yes	No	Yes	Yes (less)	Yes
Noise	Yes (Offsite)	No	Yes (less)	Yes (less)	Yes (les
Aesthetics/Light and Glare	Yes	No	Yes (less)	Yes (less)	Yes (les
Land Use	Yes	No	Yes (less)	Yes (less)	Yes
Public Health and Safety	No (Not at present time)	No	No (not at present time)	No (not at present time)	Yes
Traffic and Circulation	Yes (if offsite improvements are not constructed when the Ritter Ranch development begins)	No	Yes (less)	Yes (less)	Yes (les
Cultural Resources	No (However, potential adverse effects to CA-LAN-947)	No	No	No	No
Public Services and Utilities	Yes (Police, school, water, solid waste)	No	Yes (less)	Yes (less)	Yes (less

No = No Significant Impacts

Yes = Significant Impacts After Mitigation

Yes (less) = Significant Impacts After Mitigation, But Less Than Project

considered at present, as it would not be consistent with the proposed City of Palmdale General Plan and would not provide needed housing, recreational uses and infrastructure improvements.

B. "NO PROJECT/EXISTING ZONING" ALTERNATIVE

The "No Project" or "Existing Zoning" alternative would permit the development of the Ritter Ranch project site based on current lower density Los Angeles County land use designations. The properties would not be annexed into the City of Palmdale, therefore they would remain within the jurisdiction of Los Angeles County. The existing zoning for the properties is A-2-2 Heavy Agriculture (2 acre minimum lot size), and the current land use designation is Non-Urban (0.5 dwelling units per acre). ~~The maximum number of dwelling units under this alternative, which would be permitted by the Antelope Valley Area Plan and County Hillside Management Policies, would be 4,203 (on 10,943 acres). Site development under present land use designations would therefore result in construction of a maximum of 5,470 dwelling units on the project sites (on 10,934 acres).~~ No commercial uses would be included ~~except for local commercial uses serving as needed throughout the development as permitted by the Antelope Valley Area Plan. However, a significant amount of open space would still remain due to the project area's steep slopes and drainage courses.~~ This would be anticipated to reduce impacts to area resources and environmental factors, as compared to the presently proposed Ritter Ranch development of approximately 7,200 dwelling units (and a worst-case estimation of 309 units for the Other Annexation Areas zoned for development). ~~The 45 30 percent reduction in total dwelling units would be anticipated to result in roughly 45 30% reductions in some environmental impacts. It must be stressed that this is only a rough estimate and that actual reductions in impacts are dependent upon site plans, phasing and numerous other factors.~~

Earth Resources

There would be an estimated ~~45 30~~ percent reduction of impacts to geology and soils with the "No Project/Existing Zoning" alternative due to the reduced amount of grading that would be required with the no project or existing zoning development (assuming less development area and less mass grading for the larger lots).

Air Resources

Based on current land use designations, the "No Project/Existing Zoning" alternative is expected to result in reduced vehicle emission levels due to reduced traffic generation. In

addition, there would be less demand for gas and electricity usage, which would further reduce the air quality impact.

Water Resources

Impacts to hydrology would be decreased with the implementation of the "No Project" alternative. Storm runoff volumes would be less than those of the proposed Project, due to the estimated 45 30 percent reduction in the number of dwelling units and decrease in area of impervious surfaces. Reduced runoff would also result in reduced erosion and siltation of drainages. The greater unpaved surface areas would also result in increased groundwater recharge relative to the proposed project.

Biological Resources

Implementation of the "No Project/Existing Zoning" alternative would result in reduced biological impacts due to reduction in grading, thereby decreasing the amount of natural habitat lost as a result of project construction (assuming that the steeper southern portion of the site would not be developed). If the entire site were developed at 2-acre minimum lots (taking into consideration the County Hillside Management Policies), significantly greater impacts would occur due to disturbance within the southern area proposed as natural open space with the project.

Noise

Based on current land use designations, the "No Project/Existing Zoning" alternative is expected to result in reduced noise impacts to the local area, due to reduced traffic generation.

Aesthetics/Light and Glare

Under the present land use designations, the lower density development of the "No Project/Existing Zoning" alternative would be more aesthetically suitable to near-by residential areas (assuming use of larger lots and limited local no commercial uses). Although more hillside, ridgetop development could occur, the large lots and overall reduction in density is considered to have less aesthetic impacts than the project.

Land Use

The "No Project/Existing Zoning" alternative would keep the existing Los Angeles County land use designation N-1 (Non-Urban 1), which would allow a maximum of 0.5 dwelling units per acre. The "No Project/Existing Zoning" land use would be more consistent with nearby rural residential neighborhoods. Implementation of this alternative would ~~bar~~ allow development of local commercial uses on the property as permitted by the Antelope Valley Area Plan. This may be considered a negative impact relative to the proposed project due to the development of approximately 5,500 dwelling units and the relative scarcity of commercial land uses in the project vicinity to meet the needs of the residential development.

Public Health and Safety

Implementation of the "No Project/Existing Zoning" alternatives would result in a decrease in public health and safety impacts caused by construction-related pollutants. This alternative would also eliminate hazardous pollutants, waste, and materials associated with the currently proposed commercial areas.

Traffic and Circulation

The "No Project/Existing Zoning" alternative would reduce local traffic and circulation impacts to lower levels than that of the proposed project (an estimated 47,300 ~~58,630~~ daily trips, as compared to the proposed project's 86,000 daily trips, which is an approximate 45 ~~32~~ percent reduction). Commercial land uses are considered "trip attracting" as opposed to residential uses, which are considered "trip generating". This alternative may have additional traffic impacts, because of the lack of adequate commercial services on the project site which would result in local residents having to travel a greater distance for neighborhood services.

Cultural Resources

Implementation of the "No Project/Existing Zoning" alternative would have similar impacts to any cultural resources located on development sites compared to the proposed project. The overall reduction in grading in the development area could result in disturbance of fewer cultural resource sites.

Public Services and Utilities

The "No Project/Existing Zoning" alternative would have less of an impact due to the reduced demand for public services and utilities relative to the proposed project. The decreased development density associated with this alternative would result in less demand for gas, sewer, water, electrical, school, fire, and police services.

This alternative could reduce significant project impacts and may be considered by the City Council.

C. "REDUCED SCALE" ALTERNATIVE

The "Reduced Scale" alternative entails the development of the project site in a reduced development area, in order to further reduce hillside intrusions and impacts upon adjacent residential areas, biological resources and drainage. This could be achieved by eliminating some residential lots in certain steeper hillsides, reducing the size of the golf course, reducing lot sizes, reducing the number of dwelling units, or a combination of the above. For example, a 6,500-unit plan with similar or reduced lot sizes could allow avoiding or reducing grading within drainages and more prominent hillsides. However, it should be noted that the proposed 7,200-unit plan is a substantial reduction from previous concepts of 10,600 and 8,500 dwelling units. It is anticipated that impacts to the biological, geological, aesthetic and hydrologic aspects of the site would be reduced due to reduced development area. Traffic, air quality and noise impacts would be reduced with this alternative due to reduction of total dwelling units. Impacts to the services and utilities of the area would also be decreased with implementation of this alternative due to the reduced development density. It should be noted that this alternative may not permit the substantial regional recreational amenities proposed with the project, and may not be financially feasible due to the substantial infrastructure costs associated with the site development.

One example of a "Reduced Scale" alternative as it may be applied to the project could be elimination of dwelling units within Planning Units 3A (180 units) and 6K (573 units) for a total of 6,447 units within the project. The following discussion briefly inventories the impact upon each area associated with the above described "Reduced Scale" alternative.

Earth Resources

Reduced slope development and landform alteration would occur with this alternative. The "Reduced Scale" alternative would lessen the development area of the project site by 76

acres in Planning Area 3 (73 acres in PA 3A and 3 acres of roadway) and 254 acres in Planning Area 6, potentially reducing impacts upon hillsides and natural drainages.

Air Resources

Due to reductions in total dwelling units (11% reduction) and associated traffic, reduced impacts upon the climate and air quality in the project vicinity could be anticipated to occur with the "Reduced Scale" alternative, proportionally to the reduction in traffic.

Water Resources

The "Reduced Scale" alternative could include reduced impacts to drainage due to the reduced development area (assuming reduced channel modification and storm runoff). Groundwater recharge would also be anticipated to be greater than that of the proposed project.

Biological Resources

Implementation of the "Reduced Scale" alternative would result in less adverse impacts to the biological resources by eliminating development of approximately 330 acres. Due to reduced dwelling units and grading, vegetation removal and associated habitat degradation would be reduced in the project area.

Noise

The "Reduced Scale" alternative could result in a reduction of noise levels in the area due to reduced traffic generation.

Aesthetics/Light and Glare

The "Reduced Scale" alternative could reduce impacts upon the aesthetic quality of the project site due to additional preservation of open space, larger lot size and reduced commercial areas. Planning Area 6K and 3A are two of the most visible sites in the project area. Eliminating development within these areas would reduce, but not eliminate significant aesthetic impacts attributable to the proposed project.

Land Use

With implementation of this alternative, a reduction in the proposed development would occur allowing additional open space to remain in the hillside areas. In addition, the reduction in dwelling units would result in fewer Average Daily Trips along Elizabeth Lake Road. It should be noted that the proposed project includes buffers such as large lots and open space adjacent to the offsite areas.

Public Health and Safety

Due to similar allowable land uses, no significant reduction in potential impacts are anticipated.

Traffic and Circulation

The "Reduced Scale" alternative could result in less local and regional traffic generated by the project due to reduced total dwelling units and commercial area.

Cultural Resources

Development of a smaller project area would decrease the likelihood of disturbing cultural resources. Therefore, the "Reduced Scale" alternative is anticipated to result in fewer cultural resource impacts than the proposed project.

Public Services and Utilities

Impacts upon public services and utilities could be less upon implementation of the "Reduced Scale" alternative. A reduction in dwelling units could result in less required infrastructure and utilities demand in the project vicinity.

The "Reduced Scale" alternative described above (or any other alternative that similarly reduces the scale of the project) would substantially reduce certain environmental impacts associated with the project as noted above. However, this alternative would not be expected to avoid the identified significant impacts of the project which is presently configured to minimize environmental impacts and to retain extensive open space areas. This alternative would reduce environmental impacts, ~~and is the environmentally superior alternative;~~ however, it may not be financially feasible.

D. "RESIDENTIAL ONLY" ALTERNATIVE

If a "residential only" alternative is undertaken, most of the environmental impacts associated with the proposed project would still exist. This alternative would not include the neighborhood commercial uses (73 acres) or schools (126 acres) as currently proposed. The land use of the project site would be altered from open space to that of a residential community. This would result in environmental impacts similar to those of the proposed Ritter Ranch Specific Plan project.

Hydrological, geological, biological, public health, and cultural/scientific impacts are anticipated to be similar to those associated with the proposed project, due to similar area being graded to accommodate residential communities. Impacts associated with land use would be similar to those of the proposed project as this alternative would also be inconsistent with the land use designations of the Los Angeles County Area Wide General Plan (assuming similar residential units would be provided). Local traffic, noise and air quality impacts would be slightly decreased due to no development of onsite commercial or school sites. However, regional traffic and consequent air quality impacts would be greater than those of the proposed Specific Plan due to a job/housing imbalance and loss of local onsite employment/service opportunities. Light and glare impacts would also be decreased due to the absence of signage and parking lot lighting for the commercial uses. No significant advantage over the proposed project is anticipated.

E. "ALTERNATIVE SITE" ALTERNATIVE

The following discussion investigates two alternative sites which could possibly be considered for the proposed project. The alternative sites include the proposed Palmdale Regional Airport property and a "Rural Desert" location. To develop the proposed project within either of these locations, a new specific plan and further environmental analysis would be required. The alternative site need not be owned by the project applicant but the site must meet some of the same project objectives while reducing some of the project's significant environmental impacts.

Palmdale Regional Airport Site

The Palmdale Regional Airport site is located east of downtown Palmdale. The site is generally bordered by Avenue M to the north, Avenue Q on the south, 50th Street East on the west and 90th Street East on the east. The site covers approximately 18,000 acres, which would accommodate the proposed Ritter Ranch project. Physically, the site is relatively flat,

with the elevation ranging from 2,480 feet above mean sea level in the northwest corner to 2,635 feet above mean sea level in the southeast corner.

An environmental constraint with the development of the Palmdale Regional Airport alternative location is regional flood hazard from the Little Rock Wash, which traverses the central portion of the site from south to north. Development of the Ritter Ranch project on this site would require annexation into the City of Palmdale and a General Plan Amendment, similar to the currently proposed project. In addition, project compatibility with the existing uses in the vicinity of the site would be a concern (such as compatibility with Air Force Plant 42 to the west).

Development on this site would reduce impacts to hillside grading and development near the San Andreas Fault. In addition, the impacts upon the viewshed of the Sierra Pelona Ridge from the valley floor would be significantly reduced. The proposed project would result in similar effects to traffic, noise, air quality and public services and utilities. Given the significant cultural resources on Ritter Ranch, the airport site is expected to result in similar or reduced cultural resource impacts. This alternative site would reduce potentially significant impacts of the project (aesthetics and biological resources) and is considered ostensibly feasible. However, due to the potential land use conflicts with Air Force Plant 42 and the proposed Palmdale Regional Airport, this site is not considered suitable for a master-planned community.

Rural Desert Site

The "Rural Desert" site alternative proposes that the Ritter Ranch project be developed in the flat valley floor of the Antelope Valley (as in the presently rural portions of Palmdale or Lancaster). Development of the proposed project in a rural desert setting could reduce several of the environmental constraints associated with construction in mountainous terrain. Intrusions into the hillsides could be reduced as could the aesthetic impact of the project from the valley floor. In addition, an alternative rural desert site may avoid certain site specific constraints such as a potential land use incompatibility of the proposed project with the community of Leona Valley and the extension of utility services. Impacts on public services and utilities could be reduced if the site were located within an established assessment district. Regardless of the project location, the proposed project would result in similar effects upon traffic, noise and air quality.

This alternative may have increased land use impacts relative to the proposed project. Implementation of this alternative in a rural desert location could reduce the amount of

natural open space, equestrian and hiking/biking trails which are proposed in the Ritter Ranch Specific Plan. This alternative is ostensibly feasible, however, it may not meet the project objectives of providing a hillside residential community with substantial regional recreational and open space amenities.

VII. MITIGATION MONITORING PROGRAM

VII.

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

NH/ Coed. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
	EARTH RESOURCES					
31.	Prior to approval of any Development Application, the applicant shall provide a detailed geotechnical investigation, including recommended design, construction, and maintenance of mitigation measures to reduce potential geologic constraints, to the satisfaction of the City Engineer. At minimum, the report shall address slope stability, locations and setbacks for active/potentially active faults, excavation requirements for unsuitable surficial material, liquefaction potential and groundwater/seepage conditions. All future discretionary approvals must comply with the applicable recommendations set forth in the required investigation. Typical mitigation for geologic hazards include excavation and/or stabilization (buttress/retaining walls) of landslides and excavation of undesirable materials (such as those subject to settlement, hydroconsolidation, expansion or liquefaction) and re-compaction, if necessary, with suitable material. Recommendations from the report shall be incorporated into final grading plans, to the satisfaction of the City Engineer.	Review and Approval of the Geotechnical Investigation	Prior to Approval of Any Development Application	City Engineer		
32.	All grading and landform modifications shall be conducted in conformance with state-of-the-practice design and construction parameters as set forth in Chapter 20 of the Uniform Building Code. All graded slopes should be constructed to be grossly and surficially stable, to the satisfaction of the City Engineer.	Site Inspection	During and Following Grading	City Engineer		
33.	Reshaping of the natural terrain to permit access and construction shall be kept to a minimum. Where possible, improvements should be designed to conform to the terrain to the satisfaction of the City Engineer.	Grading Plan Review	Prior to Grading Permit Issuance	City Engineer		
34.	Where grading is necessary on minor inclined or steep terrain, the following guidelines shall apply: • Traditional Design: The angle of the graded slope shall be gradually adjusted to the angle of the natural terrain. • Angular Form: Angular forms should be avoided. The graded form shall reflect the natural rounded terrain, to the extent feasible. • Exposed Slopes: Graded slopes shall be concealed wherever possible.	Grading Plan Review	Prior to Building Permit Issuance	City Engineer		
35.	Remedial grading within the sites to mitigate the effects of collapsible surficial soils shall be performed prior to site development.	Grading Plan Review, Site Inspection	Prior to Building Permit Issuance	City Engineer, City Inspector		

* indicates Mitigation Measures which apply to both the Ritter Ranch Specific Plan and Annexation Areas;

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
66.	Positive surface-water drainage control measures shall be undertaken by the project applicant to reduce the creation of new springs or seeps to the satisfaction of the City Engineer, particularly in any high groundwater areas proposed for development.	Grading Plan Review, Site Inspection	Prior to Building Permit Issuance	City Engineer		
67.	Fill slopes should be constructed at a maximum slope of 2:1, unless otherwise approved by the City Engineer.	Grading Plan Review	During and Following Grading	City Engineer		
68.	<p>To prevent erosion and subsequent downstream siltation, the applicant shall comply with the conditions of an Erosion and Sedimentation Control Plan to be submitted for review and approval by the Antelope Valley Resource Conservation District, and review and approval by the City of Palmdale. The Plan shall address the following, at minimum:</p> <ul style="list-style-type: none"> Recommendations for drought resistant slope plantings shall be provided by a qualified landscape architect prior to project approval and implemented by the project applicant. Periodic maintenance and repair of all slopes and drainage outlets shall be conducted during and following site development. <p>Following site development, slope plantings and irrigation systems shall be maintained and leaks in the irrigation system shall be fixed without delay.</p> <ul style="list-style-type: none"> Drainage outlets shall be periodically inspected and cleaned of silt and debris both during and following site development. All slopes shall be periodically inspected for evidence of cracking and erosion and any problems shall be repaired immediately. Rodent activity shall be controlled to prevent water penetration and loosening of the soil. Minimizing the length of time that soils lie exposed. 	Review and Approval of an Erosion and Sedimentation Control Plan	Prior to Grading Permit Issuance	Antelope Valley Resource Conservation District (Antelope Valley Resource Conservation District) and the City of Palmdale		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
	<ul style="list-style-type: none"> Regular watering of cleared areas, in compliance with City requirements and SCAQMD Rule 403. Minimize the extent of cleared areas at any given time. Establishment of maximum vehicle speeds within construction areas. Pursuant to City Standards, revegetating graded areas as soon as possible after rough grading (landscaping, hydroseeding, or any other method of providing vegetative cover). Using of sandbags or similar surface water controls prior to and during grading if grading is to be done during the rainy season. Use of soil stabilizers where feasible. 					
9.	Each deed or other conveyance of Real Property shall include the following statement: "Ritter Ranch is traversed by major splays (branches) of the San Andreas Fault Zone, a very youthful geologic feature. Due to the proximity of the Ritter Ranch site to the San Andreas Fault, there is a high risk of experiencing strong ground shaking and possible surface fault rupture." Additionally, where applicable, each disclosure statement within the deed shall contain language which denotes the possibility of building restrictions on residential additions for human occupancy on those parcels which are located in Fault Hazard Restricted Use Zones.	Review and Approval of Disclosure Statement within Deed	Prior to Certificate of Occupancy Issuance	Building Safety Department		
10.	In addition to the mitigation measures listed below, compliance with the mitigation measures from the following sections of the Buena Engineers, Inc. Geotechnical Report is required to the satisfaction of the City Engineer (this report is included in Appendix B, PRELIMINARY GEOTECHNICAL INVESTIGATION): Site Grading and Foundation Recommendations; General Site Preparation; Slope Stability (fill slopes and cut slopes); Mountain Road Grading; Building Pad Construction; General Site Grading - All Lot Conditions; Lots Within Younger Alluvial Areas; Lots Within Older Alluvial Areas; Lots with Bedrock Exposed or Located within Two Feet of the Surface; Transition Lots; Excavations; Utility Trenches; Foundations; Slabs-on-Grade; Lateral Earth Pressures; Expansion; Preliminary Paving Sections; Swimming Pools; and Seepage Control.	Grading Plan Check	Prior to Grading Permit Issuance	City Engineer		
11.	The site shall be designed to accommodate City of Palmdale Engineering Design Standards and the Master Plan of Drainage, except as otherwise approved by the City Engineer, for controlling flooding and debris flows within and adjacent to Anaverde Creek, Amargosa Creek, and other existing natural drainage courses.	Grading Plan, and Site Plan Check	Prior to Grading Permit Issuance	City Engineer		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
12.	Areas noted on Exhibit 10A with an "SF" (Special Foundation Areas) or as identified in subsequent geotechnical studies are recommended for more heavily reinforced foundations and such requirements shall be indicated on each deed for Real Property within the Special Foundation Areas relative to existing and potential additional foundations on the property.	Review and Approval of Disclosure Statement within Deed for Real Properties	Prior to Certificate of Occupancy Issuance	Building Safety Department		
13.	Due to possible adverse geologic conditions in the bedrock areas (associated with bedding plane potential landslides), especially in the Pelona Schist areas in the central and southern portions of the Specific Plan site, detailed site specific analyses relative to slope stability shall be performed for all proposed cut slopes prior to issuance of grading permit. Grading permit issuance will be subject to the grading plan demonstrating compliance with applicable recommended slope stability measures.	Review and Approval of Site Specific Geotechnical Analysis, Grading Plan Check	Prior to Grading Permit Issuance	City Engineer		
14.	Cut slopes within alluvial areas will be constructed at a maximum slope of 2H:1 (unless otherwise approved by the City Engineer/Geologist).	Grading Plan Check	Prior to Grading Permit Issuance	City Engineer		
15.	Road fills proposed for any planned high cut slopes, and buttress fill shall be required to stabilize the cut and adjacent hillsides (actual dimensions shall be based on grading plans and site conditions).	Grading Plan Check	Prior to Grading Permit Issuance	City Engineer		
16.	Prior to Development Application approval, the applicant shall demonstrate, to the satisfaction of the City Director of Planning and the City Engineer that all feasible mitigation measures have been implemented to minimize grading impacts. The applicant may be required to submit complete geotechnical studies and/or reports to the satisfaction of the City Engineer. Consideration shall be given to use of "stepped" play fields for the school and park sites, particularly where a relatively level surface across the entire facility would require significant grading.	Review and Approval of Geotechnical Studies, Grading Plan Check	Prior to Development Application Approval	City Director of Planning, and City Engineer		
17.	The project geotechnical consultant shall be responsible to perform confirmatory tests and observations during grading to assure that the geotechnical recommendations are being followed and shall certify that all grading complies with the provisions of all approved plans and specifications, pursuant to the Los Angeles County Uniform Building Code, Chapter 10.	Site Inspection, and Submittal of Confirmatory Test Results for Review	During and Following Grading Activities	City Engineer and Geotechnical Consultant		
18.	Comprehensive geotechnical investigations including exploratory drilling, sampling and laboratory testing shall be performed prior to issuance of grading permit. Grading permit issuance will be subject to grading plan compliance with applicable recommendations.	Review and Approval of Geotechnical Investigation Results and Recommendations, Grading Plan Check	Prior to Grading Permit Issuance	City Engineer		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

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Mit/Coord. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
19.	Subsurface exploration shall be performed prior to issuance of grading permit. Grading permit issuance will be subject to grading plan compliance with applicable recommendations.	Review and Approval of Subsurface Exploration Results and Recommendations, Grading Plan Check	Prior to Grading Permit Issuance	City Engineer		
20.	In order to evaluate the potential for ground-surface rupture along the trace of an active fault within the San Andreas fault zone, and provide setback recommendations for proposed structures, exploratory fault trenching shall be performed prior to issuance of grading permit (see Section IV.A for additional mitigation measure text).	Review and Approval of Subsurface Exploration Results and Recommendations, Grading Plan Check	Prior to Grading Permit Issuance	City Engineer		
20a.	<p>Prior to issuance of grading permit, the project applicant shall prepare an emergency spill response plan which includes the following measures for review and approval by the City and County Sanitation District No. 20:</p> <p>Measures to detect early warning of a sewage tank leak The installation of manual or automatic isolation valves Provision for rapid spill response Spill response measures Training and familiarization measures Funding and funding for implementation and of the spill plan</p> <p>AIR RESOURCES</p>					
21.	To mitigate potential dust generation impacts, the project will comply with State, County and City dust control regulations. These regulations are intended to provide sufficient protection so as to prevent the soil from being eroded by wind, creating dust, or blowing onto a public road or roads or other public or private property.	Construction Monitoring	During Grading	City Inspector Construction Manager		
22.	In addition to watering prior to and during grading (as discussed in SCAQMD Rule 403), the application of water and chemical dust suppressants to the soil by lower soil intermix-paving shall be implemented for construction vehicle access as directed by the City Engineer by applying materials to the soil surface that solidify loose soil, when directed by the City Engineer.	Construction Monitoring	During Construction	City Engineer, Construction Manager		

BITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
23.	Grading activity shall be suspended when local winds exceed 30 miles per hour. To validate wind velocities and/or rainfall amounts, the installation of a minimum of two remote weather stations will be required at locations determined by the City Engineer.	Inspection of Weather Stations by City Engineer, Daily Monitoring of Stations by Construction Manager, Periodic Inspections by City Engineer	Prior to Grading Permit Issuance, During Grading	City Engineer, Construction Manager		
24.	Heavy construction equipment shall use low sulfur fuel (0.05% by weight) and shall be properly tuned and maintained to reduce emissions.	Construction Monitoring	Ongoing	City Inspector Construction Manager		
25.	Construction activities shall be phased and scheduled to avoid high ozone days to the extent possible .	Construction Monitoring	Ongoing	City Inspector Construction Manager		
26.	Construction will be discontinued during second stage smog alerts.	Construction Monitoring	Ongoing	City Inspector Construction Manager		
27.	The applicant shall, as required by the Planning Department and the City of Palmdale's proposed Air Quality Element, implement applicable Tier I Control Measures contained in the Final 1989 AQMP, as may be subsequently amended. As project buildout will occur over a 20-year period, subsequent phases/approvals will be held to Tier II and Tier III measures which are implemented as mandatory AQMD Rules and Regulations applicable to the project phase as they are implemented (such as through AQMD Rules and Regulations). General measures which shall be applied for the development include: a. Encourage the use of alternative transportation modes by promoting public transit usage and providing secure bicycle facilities. The applicant will implement the transit system indicated in the Specific Plan including pedestrian, bicycle and equestrian facilities. The applicant shall distribute educational material at the time of occupancy to all businesses and homeowners regarding the availability of public transit, ridesharing and other alternative transit methods and the location of bicycle routes in the project vicinity. In addition, the educational material, as reviewed and approved by the City of Palmdale Planning Department shall describe the available methods for reducing energy consumption.	Progress Reports	Ongoing, Prior to Certificate of Occupancy Issuance	City Planning Department		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

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Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
<p>b. Provide mass transit accommodations such as bus turnout lanes and bus shelters if determined necessary by the City Traffic Engineer. As final plans are developed, these features should be considered.</p> <p>c. The applicant shall contribute a pro-rata share toward acquisition and construction of a Park & Ride facility in the Avenue S/SR-14 vicinity. This shall include design and construction of one space per ten dwelling units (up to 400 total spaces) at \$250 per dwelling unit. The facility must be completed. This mitigation measure shall be completed prior to occupancy of any fifty percent (50%) of the total dwelling units approved for the project as a whole.</p> <p>d. Encourage the placement of dwelling units to take full advantage of solar energy for natural heating and cooling as recommended in Section 15.1.4 of the Specific Plan in order to reduce the use of electricity and natural gas within the project area.</p> <p>e. The applicant shall utilize Best Available Control Technology to control volatile organic compounds and Total Air Contaminants as required by SCAQMD Rules and Regulations. The Best Available Control Technology Guidelines published by SCAQMD shall be used in order to comply with the mitigation measures.</p>					
28. Prior to subsequent approvals, energy conservation practices, as required by the Subdivision Map Act, Building Energy Efficiency Standards (California Energy Commission), and state and local laws, shall be incorporated into the design of the project to have the secondary effect of limiting stationary source pollutants both on and offsite.	Compliance Review of Design Measures	Prior to Subsequent Approvals	City Planning Department		
29. All phases of the project shall comply with applicable rules and regulations of the SCAQMD.	Compliance Review of Design Measures	Prior to Subsequent Approvals	City Planning Department		
30. Projects that exceed SCAQMD threshold levels shall contribute to a the Traffic mitigation programs imposed on the development in effect at such time building permits are issued for the project, and each part thereof.	Payment of Contribution to Traffic Mitigation Program	Prior to Building Permit Issuance	City Planning Department		

RITTER RANCH SPECIFIC PLAN **MITIGATION MONITORING AND REPORTING CHECKLIST**

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestones	Responsible Party	Initials	Date
	WATER RESOURCES					
31.	All drainage facilities shall be designed and constructed in accordance with the City of Palmdale Drainage Master Plan and the Los Angeles County Hydrology Manual to the satisfaction of the City Engineer. Local facilities will be installed concurrently with or immediately after completion of grading activities. Local facilities shall be completed prior to issuance of occupancy permits for a development application for the portion of the project which is served by the facility. Regional facilities shall be constructed pursuant to the City Engineer's requirements and shall be completed prior to issuance of occupancy permits for a development application.	Compliance Review of Design Measures	During Design Review/During Construction, Regional: Prior to Occupancy Permit Issuance	City Engineer City Inspector		
32.	All regional and major on-site facilities will be designed to accommodate a 50-year Los Angeles County Capital Flood with bulking and freeboard included as required by the City Engineer.	Compliance Review of Design Measures	During Design Review	City Engineer City Inspector		
33.	All local drainage facilities shall be designed to accommodate a 25 year or a 10 year storm in accordance with the City Engineering Design standards. In general: 1) Peak runoff from a 25-year storm will be contained within the street right-of-way. 2) Peak runoff from a 10-year storm will be contained at or below the street top of curbs.	Compliance Review of Design Measures	During Design Review	City Engineer City Inspector		
34.	The lowest finish floor elevation of all habitable structures shall be a minimum of one-foot above the maximum water level resulting from the applicable capital flood.	Compliance Review of Design Measures	Prior to Building Permit Issuance	City Engineer City Inspector		
35.	Flood Control basin facilities will be incorporated at strategic locations, as shown on Exhibit 12, along major watercourses to regulate and reduce the peak flow of a capital storm to a lower value thereby reducing the size requirements for downstream drainage facilities. Flood Control basin design shall incorporate adequate peak attenuation and storage features and safety provisions (fencing, signage), to the satisfaction of the City Engineer.	Compliance Review of Design Measures	During Design Review/During Construction	City Engineer		

**RITTER RANCH SPECIFIC PLAN
MITIGATION MONITORING AND REPORTING CHECKLIST**

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
36.	<p>The applicant shall submit a water quality control plan for review and approval by the City Engineer and the Director of Planning, prior to issuance of grading permits. This plan shall be reviewed by the Regional Water Quality Control Board for their review and comment. The plan shall indicate specific means of reducing urban pollutants and sedimentation and shall comply with the provisions of any National Pollution Discharge Elimination System permit requirements that may be required by other regulatory agencies including but not limited to the following:</p> <ul style="list-style-type: none"> a. Incorporation of measures identified in the required Erosion Control Plan. b. Surplus or waste material from construction shall not be placed in drainage ways or within the 50-year Los Angeles County Capital Storm floodplain of surface waters. c. All loose piles of soil, silt, clay, sand, debris, or other earthen materials shall be protected in a reasonable manner to eliminate any discharge to waters of the State. d. Dewatering shall be done in a manner so as to eliminate the discharge of earthen material from the site. e. All disturbed areas shall be stabilized by appropriate soil stabilization measures by October 15th of each year. f. All work performed between October 15th and May 1st of each year shall be conducted in such a manner that the project can be winterized within 48 hours. g. All nonconstruction areas shall be restricted by fencing, signage or other means to prevent unnecessary disturbance. h. During construction, temporary gravel or sandbag dikes shall be used as necessary to prevent discharge of earthen materials from the site during periods of precipitation or runoff. 	Review and Approval of the Water Quality Control Plan	Prior to Grading Permit Issuance	City Engineer, and Director of Planning		

RITTER RANCH SPECIFIC PLAN **MITIGATION MONITORING AND REPORTING CHECKLIST**

MR/ Cond. No.	Mitigation Measures/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestones	Responsible Party	Initials	Date
	<p>i. Stabilizing agents such as straw, wood chips and/or hydroseeding shall be used during the interim period after grading in order to strengthen slopes while ground cover takes hold in accordance with City's Engineering Design Standards.</p> <p>j. Impervious areas shall be constructed with infiltration trenches along the downhill edges to dispose of all drainage emanating from them.</p> <p>k. Infiltration trenches shall be constructed on the downgradient side of all structural drip lines.</p> <p>l. Revegetated areas shall be continually maintained in order to assure adequate growth and root development.</p> <p>m. Physical erosion control facilities shall be placed on a routine maintenance and inspection program to provide continued erosion control integrity.</p> <p>n. Where construction activities involve the crossing and/or alteration of a stream channel, such activities should occur only after obtaining a 404 Permit (Army Corps of Engineers) and a 1601/1603 Agreement (California Department of Fish and Game), as necessary.</p> <p>o. Routine cleaning of manholes and catch basins shall be performed to remove sediment and debris.</p> <p>p. Control of washdown drainage from commercial uses shall be enforced in accordance with all waste discharge regulations and/or provisions.</p> <p>q. Information reviewed and approved by the City Attorney, regarding the disposal of waste oil/grease, pesticide containers and other hazardous materials shall be provided to new businesses and homeowners at the time of occupancy.</p> <p>r. Controlled use of pesticides and fertilizers within common areas including the golf course shall be enforced through provisions in the Landscape Plan, including frequency and type of fertilizers/pesticides to be used, and application by qualified persons. For the golf course (which would drain into a proposed wetland mitigation area), special consideration should be given to use of slow release fertilizers and contact herbicides, prohibition of fungicides and broad spectrum insecticides, and the suppression of mosquito populations using bacterial insecticides or light oils instead of chemical agents.</p>					

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
	BIOLOGICAL RESOURCES					
37.	Prior to Development Application approval, setbacks or other distance limitations in a site-specific biological study will be provided to reduce impacts to raptor nesting sites and other biological resources as listed in Section IV.D, Table 11, PREFERRED DEVELOPMENT ENVELOPE SETBACK DISTANCES . However, actual setbacks for each resource may vary less or more than the recommended distance as determined by a site-specific biological report, reviewed and approved by the Director of Planning. Setbacks less than the recommended distance may constitute a locally significant impact.	Review and Approval of Site-Specific Biological Reports	Prior to Development Application Approval	Director of Planning		
38.	At the time of construction of improvements, bridges or oversized culverts, as determined by a qualified biologist and reviewed and approved by the Director of Planning shall be constructed within the canyons of Rogers Creek, Pine Creek, and Ritter Canyon where development areas or access roads would isolate wildlife. This would allow wildlife movement across the site and into other portions of the region.	Review and Approval of Improvements	Prior to Grading Permit Issuance	Director of Planning, City Engineer		
39.	Fuelbreaks shall be from 20 to 100 feet in width and shall be manually cleared to avoid exacerbation of erosion. The fuelbreak system must conform to fire code standards. The fuelbreak system shall not be computed for credit purposes as open space due to the significant modification of the native vegetation which is required for the fuelbreak.	Site Inspection	Prior to Building Permit Issuance	City Inspector		
40.	Prior to Development Application approval, portions of the site shall be designated for restoration, enhancement or expansion of wetland habitat. Portions to be designated will be subject to Director of Planning approval but, at a minimum, the proposal shall equate to a 1:1 replacement of impacted wetlands. A Wetlands Restoration Plan, indicating specific guidelines, designation of areas suitable for mitigation, and an explanation of methods which will assure permanent preservation, shall be submitted for review and approval by the City of Palmdale, California Department of Fish and Game and U.S. Army Corps of Engineers. Said plan shall be consistent with restoration required for the Amargosa Creek Improvement Project.	U.S. ACOE and California DFG Review and Approval of Wetland Restoration Plan	Prior to Development Application Approval	U.S. ACOE, California DFG, and the Director of Planning		
41.	As directed by the City, the applicant shall conduct periodic removal of Tamarisk infestations (to include at minimum an initial clearing of specimen trees followed by annual juvenile Tamarisk removals for the next two years). In addition, infestations of <i>Arundo donax</i> if any are located within the property shall be eradicated to ensure that the development does not act as a point source for continued infestations into the National Forest.	Periodic Inspection	During Grading/Ongoing	Director of Planning		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
42.	Plants such as Pampasgrass, African Fountaingrass, Tamarisk, Castorbean, Arundo donax and exotic Fescues shall not be planted within the Specific Plan area. A review of the Landscape Plan's plant selection shall be made by a qualified revegetation biologist approved by the City Engineer and Director of Planning prior to Landscape Plan approval. The applicant shall also require that residences exclude these plants from their landscaping (as through Covenants, Codes and Restrictions enforced by a Homeowners Association).	Review and Approval of Landscape Plan's Plant Selection and Homeowners Association CC and Rs	Prior to Landscape Plan Approval and Certificate of Occupancy Issuance	City Engineer and Director of Planning		
43.	Trails within the natural open space areas shall prohibit the recreational use of four-wheel and three-wheel vehicles, motorized dirt bikes and motor cross bicycles. Special rules and restrictions shall be provided and maintained at trail access points to ensure that recreational vehicles access is prohibited.	Review and Approval of a Trails Plan	Prior to Development Application Approval	Director of Planning		
44.	The Applicant shall post signs along trail systems which designate trail boundaries for recreational uses, in order to minimize incidental disruption to open space, vegetation and wildlife.	Site Inspection	Prior to Certificate of Occupancy Issuance	City Inspector		
45.	Slopes at the edge of the development shall be revegetated with low combustible plant material as approved by the City Engineer.	Site Inspection	Prior to Building Permit Issuance	City Engineer		
46.	The Specific Plan shall include a condition to either exclude the maintenance of horses on private property, due to too small lot size, or to maintain such animals in corrals of specific size, as determined appropriate by the City. In large lots with adjacent natural areas, it is important to limit grouping of horses or other livestock to prevent destruction of native plants.	Site Plan Check	Prior to Development Application Approval	Director of Planning		
47.	The Applicant shall apply for and receive a 404 Permit from the Army Corps of Engineers and a 1603 Agreement from the California Department of Fish and Game prior to Grading Plan approval in areas which include wetlands due to the projects impact on lands under the jurisdiction of these areas.	Receipt of a 404 Permit and a 1603 Permit	Prior to Grading Plan Approval	U.S. ACOE and California DFG		
48.	Prior to Development Application approval, focused surveys shall be conducted by a City approved biologist to establish the presence or absence of sensitive species (as defined by Federal, State or Local law the City of Palmdale Planning Director) on the development site. Should sensitive species be present, applicable mitigation shall be implemented per Federal, State and Local Endangered Species Protection regulations as determined necessary by the City Planning Director.	Review and Approval of Results from Focused Surveys by a City Approved Biologist	Prior to Development Application Approval	City Planning Director		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestones	Responsible Party	Initials	Date
49.	<p>The Joshua Tree Woodland area shall be protected by <i>in situ</i> preservation of the habitat or, at the option of the City, acquisition of equivalent, offsite habitat within the Sphere of Influence of the City of Palmdale. Preservation is considered to include fencing of the site and dedication of an open space easement to the City of Palmdale. Areas adjacent to the woodland should have a 50 to 150-foot setback from the Joshua Tree or other measures as recommended in a site-specific biological study (refer to Table II, PREFERRED DEVELOPMENT ENVIRONMENT SETBACK DISTANCES).</p> <p>a. Where possible, project development or residential or commercial structures within the Specific Plan area should be designed to avoid displacement or destruction of Joshua Tree habitat. Areas adjacent to the woodland should have a 50-foot setback from the Joshua Tree plants unless a shorter distance is justified in a site-specific biological report. Within that setback, native plant cover should be restored to natural habitat values to serve as a buffer if such plant cover is not present.</p> <p>b. Upon implementation of the project, any Joshua Tree plants that are removed will be transplanted to onsite landscaped areas and/or offsite.</p> <p>c. A Joshua Tree Preservation and Transplantation Plan will be developed and submitted to the City of Palmdale Director of Planning for review and approval prior to grading permit issuance.</p>	Review and Approval of A Joshua Tree Preservation Plan and Transplantation Plan	Prior to Grading Permit Issuance	City Planning Director		
50.	<p>The Maple Canyon Spring shall be protected by ensuring that trails do not direct people to the vicinity of the spring. The McMill Loop trail depicted on Exhibit 24 of the Specific Plan shall be reviewed to determine its proximity to the spring. The alignment of this trail will be modified if field inspections determine that the spring is visible from the trail through the use of signs to keep hikers and equestrian users out of the area. The signs shall be erected prior to occupancy of any residential unit on the project site.</p> <p>NOISE</p>	Site Inspection	Prior to construction of the McMill Loop trail Prior to Certificate of Occupancy Issuance	City Inspector		
51.	<p>All construction and general maintenance activities, except in an emergency, shall be limited by City of Palmdale Municipal Code Section 828.030 to the hours of 6:30 a.m. to 8 p.m. Monday through Saturday. The operation of any machine, mechanism, device or contrivance during construction shall comply with noise limits in the City of Palmdale municipal noise ordinance.</p>	Site Inspection	During Construction/ Ongoing	City Inspector		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
52.	Development along internal and adjacent arterials will incorporate design measures or structural measures which will reduce noise levels to acceptable levels within the living or recreational portions (as defined by the City) of any lot. The measures that may be utilized to reduce noise impacts include placement of noise-sensitive buildings adjacent to the arterial roadway, increasing the distance along the roadway, creation of soundproof barriers or other soundproof barriers. The acceptable noise level CNEL which will be applied to future projects will be that level which is in place either by ordinance, ordinance, or General Plan policy. At the time that future development applications are deemed feasible, soundproof barriers shall be constructed along internal and adjacent arterials where necessary to reduce the CNEL to 60 dBA within the living or recreation portions (as defined by the City) of any lot.	Site Plan Review	Prior to Building Permit Issuance	City Engineer		
53.	Elementary school and neighborhood park development should avoid the most heavily traveled village roadways to minimize traffic noise intrusion on these uses requiring relative quiet for concentration or serenity. Where necessary, noise mitigation measures such as barriers or sound walls, shall be employed.	Site Plan Review	Prior to Grading Permit Issuance	City Engineer/ Planning Director		
54.	The applicant shall participate in a regional noise mitigation program, if developed by the City, by funding a portion share of offsite noise mitigation.	Implementation of Regional Noise Mitigation Program	Prior to Building Permit Issuance	City Planning Director		
55.	The proposed amphitheater shall require a Conditional Use Permit. As part of the CUP review process, the applicant shall provide City staff with sufficient detail to indicate that the amphitheater will not adversely affect offsite areas (as in orientation, screening and permitted activities). Adverse noise impacts shall be determined based on City Noise Ordinance provisions (with respect to peak noise levels and nuisance noise). The applicant shall also provide City staff with possible alternative locations more proximate to residential areas, as within the Town Center area, but the alternative locations should not impact other sensitive uses such as residential areas.	Submittal of Informational Package	Prior to Conditional Use Permit Issuance	City Planning Director		
AESTHETICS/LIGHT AND GLARE						
56.	During project construction, the applicant shall be required to provide appropriate screening (as with temporary fencing with opaque material), dust control (see Section IV.B, AIR RESOURCES), restricted construction hours, and a traffic control plan (Section IV.I, TRAFFIC AND CIRCULATION).	Site Inspection	During Construction/ Ongoing	City Inspector		
57.	All required landscaping will be installed, in accordance with City Standards in effect at the time of approval of the landscape plan, prior to issuance of occupancy permits for a particular area.	Site Inspection	Prior to Certificate of Occupancy Issuance	City Inspector		

RITTER RANCH SPECIFIC PLAN **MITIGATION MONITORING AND REPORTING CHECKLIST**

Mis/ Coord. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
58.	The applicant shall be required to submit a detailed Landscape Plan, to the satisfaction of the Director of Planning and the City Engineer. The Landscape Plan shall, at minimum, address special edge treatments for adjacent offsite areas (including Leone Valley), use of native vegetation, treatment of native vegetation in Specialty Parks, incorporation of natural channel areas within development areas and the golf course, and special screening techniques for aesthetically sensitive uses (including the amphitheater, Water Reclamation Plant, Equestrian Center, above-ground water storage tanks and commercial uses).	Approval of Landscape Plan	Prior to Grading Permit Issuance	City Engineer/ Planning Director		
59.	Landscaping will be consistent with the Specific Plan in order to maintain a cohesive theme across the project site, and in order to reduce aesthetic impacts of structures to adjacent roadways and residential properties.	Approval of Landscape Plan	Prior to Grading Permit Issuance	City Planning Director		
60.	Any lights used to illuminate the parking areas, driveways, and other exterior or interior areas, shall be designed and located so that direct lighting is confined to the property. The applicant shall submit photometric lighting plans for commercial, multi-family and recreational projects. In addition to directional lighting, lighting should not be of greater intensity (wattage) than otherwise necessary for public safety.	Review and Approval of Photometric Lighting Plans	Prior to Grading Permit Issuance	City Planning Director		
61.	Project design shall incorporate additional techniques to reduce light and glare, such as use of opaque glass instead of reflective glass, and earthtone building materials in high visibility areas.	Project Design Review	Prior to Grading Permit Issuance	City Planning Director		
62.	Flood control improvements shall utilize natural channels and/or be composed of natural materials with interspersed vegetation to maintain existing aesthetic qualities, where feasible, without jeopardizing the adequacy of flood control.	Grading Plan Review and Approval	Prior to Grading Permit Issuance	City Engineer and Landscape Architect		
63.	Disturbed and unlandscaped areas shall be replanted with native vegetation compatible with the existing native vegetation , appropriate to the site, which will blend in with existing species.	Approval of Landscape Plan, Site Inspection	Prior to Building Permit Issuance	City Planning Director and City Inspector		
64.	The project will follow the grading plan approved by the City and avoid disturbance of adjacent areas where possible.	Site Inspection	During Grading Activities	City Inspector		
65.	To the extent feasible, removal of existing native trees and vegetation shall be minimized during project construction and grading, particularly within existing natural channels (this can be accomplished by staking sensitive habitat at the limits of grading to avoid incidental disruption). The project grading plan shall clearly indicate permit limits and areas to remain.	Grading Plan Review and Approval	Prior to Grading Permit Issuance	City Engineer		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Coord. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
	LAND USE					
66.	The Applicant shall annually evaluate all design guidelines, development standards and mitigation measures for the Ritter Ranch Specific Plan, submitting a Monitoring Report to the Director of Planning the first quarter of each year through buildout of the project. In addition, the applicant shall submit serial photos of the project site taken on a monthly basis when grading is occurring. The monitoring report shall include serial photos of the project site taken on a monthly basis during project construction. Monitoring and verification of compliance with adopted applicable Specific Plan development standards shall also be performed prior to subsequent approvals, to determine if the proposed measures are achieving their intended purpose. To the extent allowed by law, future discretionary approvals may include additional conditions of approval based upon City staff review of the Annual Monitoring Report. Notwithstanding, the mitigation measure shall be construed to permit environmental review beyond the extent permitted by State law.	a) Submittal of Annual Monitoring Report. b) Compliance Review of Adopted Development Standards	a) First Quarter of Each Year Through Buildout. b) Prior to Subsequent Approvals	City Planning Director		
	PUBLIC HEALTH AND SAFETY					
67.	In the areas where trash and debris have been dumped into stream channels within the property, near-surface soil samples and analysis of those samples (Priority Pollutants Scan) for the identification of chemicals or contaminants shall be collected prior to removal operations to evaluate landfill class designations for the debris.	Review of Near-Surface Soil Samples	Prior to Removal Operations	City Engineer		
68.	Prior to issuance of grading permits for the areas described below , further investigations, possibly to include sampling and testing, shall be conducted to ascertain the types and amounts of potential hazardous materials associated with the following: the former turkey ranch area; partially and completely buried refuse; the Hunt Club area; surficial debris and a locked trailer marked "Lockheed Emergency Vehicle"; and existing structures with the potential of containing asbestos fibers.	Site Inspection, Review and Approval of Completed Studies on Specific Sites.	Prior to Grading Permit Issuance	City Engineer, City Inspection		
69.	If subsequent investigations of the site determine the presence of hazardous materials, the developer shall retain a licensed hazardous materials contractor to conduct clean-up of the site using proper disposal procedures. Clean-up and disposal of the site shall comply with all local, state and federal regulations regarding handling, transport and disposal of hazardous materials.	Documentation of Completed Clean-Up	Prior to Grading Permit Issuance	City Engineer, City Inspection		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date															
70.	<p>Although the right-of-ways surrounding the power transmission lines traversing the project site properties appear to be sufficient to protect residents, the following guidelines, including the City of Palmdale undergrounding ordinance, shall be incorporated into the project plans and are subject to approval by the City Engineer and Planning Director:</p> <p style="text-align: center;">Basic Minimum Allowable Clearances of Wires Above Thoroughfares and Ground-Clearances From Poles, Buildings, Structures, or Other Objects</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td></td><td style="text-align: center;">Distance by Voltage</td><td></td></tr> <tr> <td><u>Nature of Clearance</u></td><td style="text-align: center;"><u>22.5-300 kV</u></td><td style="text-align: center;"><u>300-550 kV</u></td></tr> <tr> <td>Crossing or along thoroughfares in urban districts or crossing thoroughfares in rural districts.</td><td style="text-align: center;">30 feet</td><td style="text-align: center;">30 feet*</td></tr> <tr> <td>Above ground in areas accessible to pedestrians only</td><td style="text-align: center;">25 feet</td><td style="text-align: center;">25 feet*</td></tr> <tr> <td>Horizontal clearance of conductor from buildings</td><td style="text-align: center;">6 feet</td><td style="text-align: center;">15 feet</td></tr> </table> <p>* Shall be increased by 0.025 feet per kV in excess of 300 kV.</p> <p>Source: Rule 37, <u>General Order No. 95, Rules for Overhead Electric Line Construction</u>, Public Utilities Commission of the State of California, March 1981. PUC staff (Mr. Pat Stone) has indicated there are not separate BLP guidelines for school facilities.</p>		Distance by Voltage		<u>Nature of Clearance</u>	<u>22.5-300 kV</u>	<u>300-550 kV</u>	Crossing or along thoroughfares in urban districts or crossing thoroughfares in rural districts.	30 feet	30 feet*	Above ground in areas accessible to pedestrians only	25 feet	25 feet*	Horizontal clearance of conductor from buildings	6 feet	15 feet	Site Plan Review	Prior to Grading Permit Issuance	City Engineer, and Planning Director		
	Distance by Voltage																				
<u>Nature of Clearance</u>	<u>22.5-300 kV</u>	<u>300-550 kV</u>																			
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Horizontal clearance of conductor from buildings	6 feet	15 feet																			
71.	<p>All project homeowners and tenants shall be advised of potential health risks associated with power transmission lines prior to close of escrow/execution of rental lease. The content and form of said notification shall be indicated in the applicable escrow, deed and/or lease documents in a format acceptable to the City attorney.</p>	Review and Approval of Disclosure Statement with Deed or Lease Document	Prior to Certificate of Occupancy Issuance	City Attorney																	

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

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Mit/ Coord. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
	TRAFFIC AND CIRCULATION					
72.	All road improvements shall be designed in accordance with City of Palmdale and Ritter Ranch Specific Plan roadway design standards as approved by the City Engineer. Prior to development application approval, the Applicant will be required to submit a Transportation Demand Management Plan and a Focused Traffic Study for review and approval by the Director of Planning and the Traffic Engineer, as appropriate, to determine the necessary improvements for impacts generated by that project. These plans shall be prepared in accordance with the Los Angeles County Transportation Commission's Congestion Management Plan, the City's transportation analysis guidelines, the City's transportation plan, and the Engineering Design Standards. Necessary improvements shall be determined by the City Traffic Engineer, and shall include, but not be limited to, all on-site and off-site road improvements to achieve a Level of Service D (peak period) or better with ultimate traffic projections. On the basis of this and other studies, the developer will improve or fund a pro-rata share of improvements. The developer shall pay appropriate traffic impact fees in accordance with City Ordinance 325, and all other fees for facilities and services that may be in place at the time of issuance of certificates of occupancy. Phasing of off-site improvements shall be determined by the City Engineer, as described in Section IV.C of the EIR.	File Check Compliance With Design Plan Review and Approval of Transportation Demand Management Plan and Focused Traffic Study	Prior to Issuance of Grading Permit Prior to Development Application Approval.	City Engineer/ City Planning Director and Traffic Engineer		
73.	The applicant shall be required to submit a Traffic Control Plan for review and approval by the City Traffic Engineer, prior to issuance of a permit to commence construction related traffic impacts. Said plan shall be consistent with traffic measures for the Antelope Creek Improvement Project. All road improvements shall be provided in accordance with City design standards to the satisfaction of the City Engineer, prior to issuance of occupancy permits.	Review and Approval of a Traffic Control Plan Compliance Review of Design Standards	Prior to Grading Permit Issuance Prior to Certificate of Occupancy Issuance	City Traffic Engineer		
74.	The Ritter Ranch Specific Plan identifies ultimate on-site roadway cross sections and lane configurations necessary to serve the project at build-out. Phasing of on-site roadway improvements shall be in accordance with the Ritter Ranch Specific Plan Phasing Plan as approved by the City Public Works Department. The applicant shall be required to submit a Traffic Control Plan for review and approval by the City Traffic Engineer, prior to issuance of grading permits, which incorporate state-of-the-practice standards to minimize construction-related traffic impacts. Said plan shall be consistent with construction traffic measures for the Antelope Creek Improvement Project.	Compliance Review of Phasing Plan Review and Approval of a Traffic Control Plan	Prior to Approval of Development Application Prior to Grading Permit Issuance	City Traffic Engineer		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
75.	<p>Prior to development (application approved) the Applicant shall provide a traffic impact study in accordance with City Ordinance 15.100. All other traffic fees apply City-wide (that may be in place at the time of issuance of Certificate of Occupancy). These traffic impact fees provide the property owner with 10% contribution towards offsite roadway improvements to be utilized for development. Funds generated from the traffic impact fees shall be applied toward offsite improvements to Elizabeth Lake Road, Potrero Road, Avenue S, and 10th Street West/Tierra Subida Road, as approved by the City Public Works Department.</p> <p>In addition to all on-site improvements, the Applicant shall be required to provide offsite improvements to Rayburn Road, Tierra Subida, Avenue S, City Ranch Road, Bouquet Canyon Road, and Elizabeth Lake Road, including the roadway west of Godde Hill Road as determined appropriate by the City Traffic Engineer (construction shall be completed prior to occupancy).</p> <p>Offsite improvements shall include provision of road configurations shown in Exhibit 18, YEAR 2010 CIRCULATION SYSTEM, including the following:</p> <ul style="list-style-type: none"> Widen Elizabeth Lake Road to six through lanes between 10th Street West and SR 14, including provision of three through lanes for Elizabeth Lake Road at both intersection approaches at 20th Street West and 25th Street West. Widen Elizabeth Lake Road to four lanes from Bridge Road to west of Godde Hill Road. 					
76.	<p>The developer(s) of Ritter Ranch may construct offsite roadway improvements in lieu of Traffic Impact fees, as approved by the City Public Works Department. If, as a result of project impacts, the level of service falls below either the standards set by the Los Angeles County Transportation Commission's Congestion Management Plan, or the policies set by the City's General Plan, the applicant shall implement improvements or services necessary to bring the roadway segment into compliance.</p>	<p>Construction of Offsite Facilities Compliance Review of Set Traffic Standards</p>	<p>Determination to Construct Offsite Facilities Will Be Made Prior to Approval of Development Applications Following Construction/ Ongoing.</p>	<p>City Traffic Engineer, City Engineer</p>		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
77.	The developer shall comply with the provisions of the City of San Diego's Mitigation Measure Plan adopted pursuant to SDGE 100. The developer shall construct a four-lane divided roadway section of Ranch Center Drive between Elizabeth Lake Road and Ritter Ranch Road, and a four-lane divided roadway section on City Ranch Road between Ritter Ranch Road and Ranch Center Drive.	Overall Review of SDGE 100 Standards Plan Review	Following Adoption of CMP/Grading Prior to Grading Permit Issuance	City Traffic Engineer, City Engineer		
	CULTURAL RESOURCES					
78.	Reports, maps or figures with plotted archaeological locations are considered confidential, and are to be released only on a clearly defined "need to know" basis.	Release of Information	Ongoing	Qualified Archaeologist		
79.	Prior to issuance of grading permits for each area of the Ritter Ranch Specific Plan, a qualified archeologist shall be retained at the expense of the developer to formulate and carry out an Archeological Monitoring Program for the project area. The Archeological Monitoring Program as approved by the Director of Planning shall include, but not be limited to measures identified in this EIR, and the 1990 RMW Paleo Associates report (Appendix I), and the 1991 LSA Phase II Archaeology Report (dated June 14, 1991).	a) Formulate and Follow an Archeological Monitoring Program b) Review and Approval of an Archeological Monitoring Program	Prior to Grading Permit Issuance	a) Qualified Archaeologist b) City Planning Director		
79a.	The following additional work shall be performed by a qualified archeologist retained by the Developer, and approved by the Planning Director. Because the introduction of materials into the area will result in the degradation of these archaeological sites, the required testing specified below and preparation of the subregional report shall be completed, and reviewed and approved by the Planning Director, prior to recordation of the first parcel map or tract map prepared for the project.	Review and Approval of Final Study and Subregional Report	Prior to Recordation of the First Parcel Map or Tract Map Prepared for the Project	Director of Planning		
	LA 9-97: There is an additional petroglyph boulder that needs to be recorded. Since the site cannot be preserved in place as the project is currently designed, test pits shall be excavated to determine whether indigenous deposits are present. If any are encountered, data recovery shall be conducted.					

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Coord. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date																																			
	<p>Those sites which contained surface artifacts and were not previously tested shall be tested with at least one standard test unit per block. The testing program shall be submitted to the City Planning Department for review and approval prior to commencement. In addition, enclosed rapid test and testing charts shall also be tested in this manner. Any additional testing shall be required as a mitigation measure for the development application.</p> <p>A subregional analysis shall be prepared to provide a basis for significance determinations. It shall include a research design that would set standards for future work in the Ana Verde/Sierra Pelosa subregion.</p> <p>Display boulders which have to be relocated must be done under the direction of a qualified archaeologist who will give general direction in installation of the boulders. The boulders shall be moved prior to site disturbance in their immediate vicinity to a location approved by the Planning Director. Each boulder will be photographed and shall be relocated in an interpretive context where they can be used for educational purposes. Representative artifacts could be worked into some sort of display for an interpretive center as well.</p>																																								
80.	<p>Required research salvaging and/or protection of known sites shall occur prior to approval of a grading permit within the affected area of resources (to the extent feasible) sites shall be protected in place). This includes, but is not limited to the following:</p> <table border="1"> <tbody> <tr> <td>767</td><td>1247</td><td>1639</td><td>1636</td><td>1644H</td></tr> <tr> <td>817</td><td>1379</td><td>1630</td><td>1637</td><td>1645H</td></tr> <tr> <td>853</td><td>1380</td><td>1631</td><td>1638H</td><td>RR-28H</td></tr> <tr> <td>859</td><td>1281</td><td>1633</td><td>1639H</td><td>RR-33</td></tr> <tr> <td>1035</td><td>1335</td><td>1633</td><td>1640</td><td>RR-35</td></tr> <tr> <td>1319</td><td>1627</td><td>1634</td><td>1641H</td><td>RR-39</td></tr> <tr> <td>1320</td><td>1638</td><td>1635</td><td>1642H</td><td>RR-40</td></tr> </tbody> </table>	767	1247	1639	1636	1644H	817	1379	1630	1637	1645H	853	1380	1631	1638H	RR-28H	859	1281	1633	1639H	RR-33	1035	1335	1633	1640	RR-35	1319	1627	1634	1641H	RR-39	1320	1638	1635	1642H	RR-40	<p>Research, Salvaging, and/or Protection of Known Archaeologist Sites; Grading Monitoring</p>	<p>Prior to Grading Permit Issuance; During Grading</p>	<p>City Planning Director, Qualified Archaeologist</p>		
767	1247	1639	1636	1644H																																					
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81.	<p>Monitoring during grading activities shall be accomplished by an archaeologist approved by the Director of Planning. Said archaeologist shall be present at any pre-grading conference and shall have the power to enforce required mitigation measures related to cultural resources. Mass grading activity shall be periodically monitored, particularly during initial site clearing, to insure that any buried archaeological deposits which may exist on the property are detected. This monitoring shall be maintained until undisturbed bedrock is exposed. The monitoring archaeologist shall be prepared to document and recover any material which appears as quickly as is consistent with standard archaeological practice. If determined necessary, the archaeologist may halt grading to ensure adequate salvaging and/or protection of cultural resources (upon which the Director of Planning and Applicant shall be notified).</p>	<p>Grading Monitoring</p>	<p>During Grading</p>	<p>Qualified Archaeologist</p>																																					

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Coed. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
782.	Areas to be disturbed by grading shall be reexamined for cultural resources following removal of the vegetation cover and during initial grading stages. If cultural resource sites are exposed by this activity they shall be subjected to appropriate test excavation and salvaging/protection efforts.	Salvaging/Protection of Identified Cultural Resource Sites	During Grading	Qualified Archaeologist		
783.	Reports, maps or figures with plotted fossil localities are considered confidential, and are to be released only on a clearly defined "need to know" basis.	Release of Information	Ongoing	City Planning Director		
784.	Prior to issuance of a grading permit for each area of the Ritter Ranch Specific Plan, a qualified paleontologist shall be retained at the expense of the developer to formulate and carry out a Paleontological Monitoring Program for the site that includes the area. The Paleontological Monitoring Program approved by the Planning Director shall include, but not be limited to measures identified in this EIR.	a) Formulate and Follow a Paleontological Monitoring Program b) Review and Approval of a Paleontological Monitoring Program	Prior to Grading Permit Issuance	a) Qualified Paleontologist b) City Planning Director		
785.	A qualified paleontologist shall be retained to monitor and, if necessary, salvage scientifically significant fossil remains.	Grading Monitoring	During Grading	Qualified Paleontologist		
786.	The paleontologist shall have the power to temporarily divert or direct grading efforts to allow evaluation and, if necessary, salvage of exposed fossils.	Grading Monitoring	During Grading	Qualified Paleontologist		
787.	The matrix samples for microvertebrates shall be submitted for processing and identification at a facility such as the Los Angeles County Museum of Natural History.	Receipt of Donation of Fossils by Final Repository	During/Following Grading	Qualified Paleontologist		
788.	Paleontological monitoring efforts shall be based on the sensitivity of the geological units being excavated, the number of equipment in operation at one time, and the amount of material (in cubic yards) being moved.	Grading Monitoring	During Grading	Qualified Paleontologist		
	a. Geological units of "high" sensitivity shall be monitored on a full-time basis. If more than one piece of heavy equipment is being run simultaneously and/or more than 25,000 cubic yards of earth is to be graded per day, then additional monitors will be needed.					
	b. Geological units of "low" sensitivity require monitoring at least once every five days of grading activity. If significant fossils are recovered during grading, then a change in paleontologic sensitivity would be warranted, and full-time monitoring could be needed.					
	c. Geologic units of "no" paleontologic sensitivity will not require monitoring.					

BITTER RANCH SPECIFIC PLAN **MITIGATION MONITORING AND REPORTING CHECKLIST**

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
89.	Matrix samples for microvertebrate screening shall be collected and processed during monitoring. If microvertebrates are present, up to 6,000 pounds of matrix will need to be sampled. This material can be placed to one side of the active grading so as not to delay the project. Screening may be done onsite.	Screening of Samples	During Grading/Following Grading	Qualified Paleontologist		
90.	All fossils collected need to be prepared to the point of identification. These remains should be donated to an institution with an educational and/or research interest in the materials and a retrievable storage system, such as the Los Angeles County Museum of Natural History. This shall occur within one year of individual project completion.	Receipt of Donation of Fossils by Final Repository	During Grading/Following Grading	Qualified Paleontologist		
91.	A final report summarizing findings, including an itemized inventory, contextual stratigraphic data, and photographs shall accompany the fossils to the designated repository with an additional copy sent to the City of Palmdale Planning Department. Because development of the proposed project is phased over many years, separate reports may be required to summarize mitigation for certain fossil sites.	Submittal of a Final Report Summarizing Findings of Each	Concurrent with Receipt of Donations of Fossils by Final Repository	City Planning Department		
PUBLIC SERVICES AND UTILITIES						
92.	Adequate emergency access and circulation throughout and around the project shall be provided to the satisfaction of the Los Angeles County Sheriff's Department. Temporary emergency access shall be provided during project construction.	Compliance Review of Design Measures and Site Inspection	During and Upon Completion of Project Construction	City Engineer and Los Angeles County Sheriff's Department		
93.	Adequate lighting shall be provided to enhance crime prevention and law enforcement efforts to the satisfaction of the Los Angeles County Sheriff's Department.	Compliance Review of Design Measure	Prior to Certificate of Occupancy Permit	Los Angeles County Sheriff's Department		
94.	Proper address signs shall be provided for identification of locations during emergencies.	Compliance Review of Design Measure	Prior to Certificate of Occupancy Permit	Los Angeles County Sheriff's Department		
95.	The Applicant shall consult with the Los Angeles County Sheriff's Department regarding landscape standards to ensure that landscape features do not conceal potential criminal activity around buildings and in parking areas. This measure will be implemented to the satisfaction of the City of Palmdale Planning Director and City Engineer prior to staff acceptance of the Landscape Plan. Landscape feature standards which do not conceal potential criminal activity around buildings and in parking areas shall be provided. This measure will be implemented to the satisfaction of the Los Angeles County Sheriff's Department.	Compliance Review of Design Measure	Prior to Certificate of Occupancy Permit	Los Angeles County Sheriff's Department		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
96.	The applicant must participate in funding of a new police station and associated equipment as determined by the Los Angeles County Sheriff's Department. This may include acquisition of a 15-acre regional facility office, funding for acquisition of a site, construction of the facility or other requirements as determined appropriate by the Los Angeles County Sheriff's Department. Library	Developer Financing of a New Police Station	Prior to Development Application Approval	Los Angeles County Sheriff's Department and City Planning Director		
97.	The applicant shall construct a branch library facility within the Ritter Ranch community to be a minimum size of 16,000 square feet and have a book collection of approximately 50,000 volumes. The applicant shall reserve a site of adequate size as reviewed and approved by the City. The applicant may enter into a reimbursement arrangement, as approved by the City, with the adjacent developer to share the cost of this facility. Schools	Review and Approval of Reserved Site	Prior to Development Application Approval	City Planning Department		
98.	All schools shall be required to implement safety programs (in accordance with State and City Guidelines) which may include where appropriate, the following: <ul style="list-style-type: none"> • Crossing guards to be present to assist students in crossing the street • School speed zone signs • Pedestrian cross walks • Flashing warning lights where sight distance is limited, as in Planning Unit 2A • Signalized intersection or stop signs (to be provided by applicant if deemed necessary by the City traffic engineer) 	Review and Approval of Safety Programs	Prior to Certificate of Occupancy Issuance	Westside Union School District and Antelope Valley Union High School District		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestones	Responsible Party	Initials	Date
99.	<p>(A) Westside Union School District: The developer shall comply with the terms of the agreement, dated November 26, 1997, between the developer and the Westside Union School District as mitigation for impacts caused by development of the project on the Westside Union School District. The terms of that agreement are as follows:</p> <p>(i) Developer's Fee: Developer hereby agrees to pay to District one dollar and seventy-five cents (\$1.75) per square foot of habitable residential development plus the amount of the building permit on each unit. A fee of twenty-five cents (\$.25) per square foot of industrial/commercial construction shall be paid to the District prior to the issuance of each commercial building permit. All such amounts shall be subject to annual adjustment payments to increases or decreases in the School Construction Cost Index of the Office of Local Assessment with January 1, 1997 as the base.</p> <p>(ii) School Sites: In addition, Developer hereby agrees to sell to District five (5) eight acre elementary school sites with each being adjacent to a park, two (2) five acre middle school sites with each being adjacent to a park, and one (1) twenty acre middle school site, designated as Exhibit B, attached hereto and incorporated herein by reference.</p> <p>The purchase price for the District shall be the fair market value of each site at the time of conveyance rounded up to a whole \$100,000 per acre plus amount of District Parcel Value Increase or decrease in the school construction cost index of the Office of Local Assessment with January 1, 1997 as the base. The fair market value shall include all offsite improvements and grading of the site.</p> <p>In the event that the parties cannot agree on the fair market value, each party shall obtain an appraisal from an MAI certified appraiser. If the two appraisals are within \$5,000 of each other the FMV shall be the lower value plus one-half of the difference. If the difference between the two appraisals is more than \$5,000, the County Superintendent of Schools shall designate a third appraiser who shall be independent of the parties and MAI certified and who shall conclusively establish the fair market value. The cost of the third appraisal shall be borne equally by the parties.</p>	<p>Compliance Review of Design Measures Agreement From Antelope Valley Union School District Compliance Review of Design Measures With Some Letter Room-affected School Districts</p>	<p>Prior to Development Application Approval</p>	<p>Westside Union School District and Antelope Valley Union High School District</p>		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Coord. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
	<p>Developer shall perform all onsite improvements such as roads, utility poles, water (with a five percent increase in water rate), sewer, and electric in the area for all lots in the project as provided above. Developer shall also provide rough grading of the lots to District's reasonable specifications. Title to the lots shall be transferred to District free and clear of all monetary liens, encumbrances, taxes, and security interests and easements or restrictions which interfere with the District's plan to use the property for the development of the school site prior to the filing of any final map on the tract. Onsite and utility improvements shall be performed concurrently with improvements on the remainder of the tract.</p> <p>The District may exercise its right to acquire the property by serving written notice on Developer and obtaining an order of eminent domain. Developer shall within thirty (30) days of receipt of notice deposit a trust deed covering this as required to assure notice by the District to purchase the property shall not be served earlier than the filing of a final subdivision map on any adjacent property. The District shall continue its intent to purchase any particular parcel within one (1) year after the filing of a final subdivision map on any adjacent property. District shall extend the purchase time as necessary. Payment shall clear within thirty days of closing.</p> <p>(B) <u>Assistance Valley Union High School District</u>: The Developer shall provide the following mitigation to the District in order to provide its contribution toward the District's fifty (50) percent share of funding a new high school on the site pursuant to Government Code Section 65996 and Education Code Section 17700 et. seq. (School Facility Funding Law).</p> <p>(C) <u>Developer Fee</u>: Developer shall pay to the District one dollar and twenty cents (\$1.20) per square foot of habitable residential development, including common housing, prior to the issuance of the building permit on each unit. A fee of twenty six cents (\$0.26) per gross leasable square foot of industrial/commercial construction shall be paid to the District prior to the issuance of each commercial building permit. All such amounts shall be subject to annual adjustment pursuant to increases or decreases in the School Construction Cost Index of the Office of Local Assistance with January 1, 1992 as the base.</p>					

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
	<p>(ii) School Sites. In addition, Developer hereby agrees to offer the District a site for purposes of constructing a high school campus, with the terms for dedication as set forth herein. The District shall dedicate fifty (50) acres of land in Planning Area 1A for a school site to the District at no cost to the District. The specific fifty (50) percent of the seventy-six (76) acres in Planning Area 1A shall be at the election of the District. Title to the site shall be transferred to District free and clear of all monetary liens, assessments, taxes and encumbrances and encumbrances or any restrictions which interfere with the District's plans to use the property for the development of the school site prior to the filing of any final map or a subdivision map to the Specific Plan area. In the event that site preparation work on the school site, including purchase of access to Elizabeth Lake Road and utilities, exceeds the amount of \$4,000,000, the Developer shall pay fifty (50) percent of the amount over that figure, not to exceed a total of \$350,000.</p> <p>(iii) Transfer Procedures. The District may exercise its right to acquire the site specified above by exercising eminent domain on Developer and opening an easement across the site. Developer shall, within thirty (30) days of receipt of notice of intent to exercise the right, deed conveying title as referred to above. Easement shall close within thirty days of opening.</p> <p>The applicant shall dedicate school sites and construct some and/or interim school facilities as determined necessary by the Planning Director according to the specifications provided by the Westside Union School District and the Antelope Valley Union High School District to accommodate the students generated by the Ritter Ranch development. The facilities shall be provided within the timeframes set by the School Districts to accommodate the project's student population. However, the following guidelines should be considered for providing schools:</p> <ul style="list-style-type: none"> — School sites shall be devoted to the School District at the time that Final Maps are recorded. — An elementary school should be constructed and operational prior to issuance of the 1,400th occupancy permit for the project as a whole. In addition, for each subsequent 1,400 occupancy permits, an additional elementary school should be constructed. — The middle school should be constructed and operational prior to issuance of the 3,000th occupancy permit for this project. 					

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
	<p>— The high school should be constructed and operational prior to issuance of the 7,000th occupancy permit for the project.</p> <p>— Provisions for mitigating the impacts to the middle schools, caused by the need to provide additional facilities beyond those proposed on-site to accommodate all middle school students, should be determined prior to issuance of the first occupancy permit for the project either through the payment of fees, dedication of property, construction of facilities, and/or other methods deemed appropriate by the school district.</p>					
90a.	<p>Prior to completion of the permanent school facilities, the applicant shall provide interim facilities, which may include but shall not be limited to, classrooms, administration offices, and auxiliary facilities, as may be required to house students generated by the proposed project on an interim basis.</p> <p>Telephone</p>	Review of Plans; Site Inspection	Prior to Completion of Permanent School Facilities	City Planning Department and Building Safety Department		
*100.	Onsite telephone facilities shall be provided by utilizing joint trenches.	Review of Plans; Site Inspection	Prior to Building Permit Issuance	City Inspector		
101.	<p>Developers of individual properties within the Specific Plan area will be responsible for payment of assessment fees and installation of required conduits prior to issuance of occupancy permits.</p> <p>Electrical Service</p>	Payment of Assessment Fees; Site Inspection	Prior to Certificate of Occupancy Issuance	City Inspector		
*102.	All permanent powerlines shall be placed underground (consistent with the City's current Undergrounding Ordinance) by the applicant prior to issuance of occupancy permits.	Compliance Review of Design Measures and Site Inspection	Prior to Certificate of Occupancy Issuance	City Inspector		
*103.	<p>The project applicant shall coordinate with SCE to ensure that adequate electrical service is provided to the proposed development and that service connection activities will be performed in cooperation with SCE to minimize any short-term impacts.</p> <p>Water Service</p>	Will Serve Letter, Review of Plans	Prior to Development Application Approval	SCE, City Engineer		
*104.	The applicant shall cause the project area to be annexed to the Los Angeles County Waterworks District 34 service area.	Approval of Annexation	Prior to Development Application Approval	City Planning Department and Los Angeles County Waterworks District No. 34		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
§105.	As required by state law, the following water conservation measures will be incorporated into the project: <ul style="list-style-type: none"> • Low-flush toilets and urinals • Low-flow showers and faucets • Insulation of hot-water lines in water recirculating systems • All fixtures must be California Energy Commission (CEC) certified • Public lavatory facilities must be equipped with self-closing valves. 	Site Inspection	Prior to Certificate of Occupancy Permit	City Inspector		
§106.	The following water conservation measures shall be implemented where applicable and feasible: <p>Interior</p> <ul style="list-style-type: none"> • Supply line pressure water pressure greater than 50 pounds per square inch (psi) shall be reduced to 50 psi or less by means of a pressure reducing valve. • Drinking fountains shall be equipped with self-closing valves. • Laundry facilities shall use water-conserving models of washers. • Ultra low-flush toilet (1-1/2 gallons per flush) shall be installed in all new construction. <p>In restaurants, water conserving dishwashers shall be used and drinking water shall be served only upon request.</p>	Site Inspection	Prior to Certificate of Occupancy Permit	City Inspector		

BITTER RANCH SPECIFIC PLAN **MITIGATION MONITORING AND REPORTING CHECKLIST**

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
	<p>Exterior</p> <ul style="list-style-type: none"> Landscape with low water-consuming plants wherever feasible. Minimize use of lawn by limiting it to lawn-dependent uses, such as playing fields. When lawn is used, require warm season grasses. Group plants of similar water use to reduce overirrigation of low-water-using landscaping. Provide information to project residents and tenants regarding benefits of low-water using plants. Use mulch extensively in all landscape areas. Mulch applied on top of soil will improve the water-holding capacity of the soil by reducing evaporation and soil compaction. Preserve and protect existing trees and shrubs. Established plants are often adapted to low-water-using conditions and their use saves water needed to establish replacement vegetation. Install efficient irrigation systems which minimize runoff and evaporation and maximize the water which will reach the plant roots. Drip irrigation, soil moisture sensors and automatic irrigation systems are a few methods to consider in increasing irrigation efficiency and may be feasible for the project. Use pervious paving material whenever feasible to reduce surface water runoff. 					
§107.	Provision of water service to the proposed project will be required as a part of the project development and will occur to the satisfaction of the City of Palmdale prior to issuance of building permits. Project implementation will require mitigation in coordination with the City of Palmdale, Los Angeles Waterworks District No. 34, and the Los Angeles County Fire Department.	Will Serve Letter	Prior to Issuance of Building Permit	Building and Safety Department		
§108.	Above-ground water storage tanks shall be designed with appropriate grading, color, and landscaping techniques to minimize visual impacts to be reflected in applicable Landscape Plans and Grading Plans.	Review of Plans	Prior to Grading	City Engineer		

BITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Coord. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
	Sewer Service					
§109.	The project developer will be required to pay sewer assessment fees, and will provide adequate onsite wastewater conveyance facilities, and will conform with City Public Works Department and County Sanitation District No. 20 development standards pertaining to wastewater. All structures/facilities will connect to the sanitary sewer system. No septic systems will be allowed with the possible exception of restroom facilities located in the remote specialty parks. Subject to approval by the Public Works Department and Sanitation District, the developer shall provide funds for building sewerage collection and effluent facilities.	Payment of Fees; Compliance Review of Design Measures	Prior to Construction of Developments Facilitated by the Project	City Public Works Department and County Sanitation District No. 20		
§109.	In the event that the Developer of the Bitter Ranch Specific Plan constructs effluent sewer lines within the San Andreas Fault zone, the developer shall cause the preparation of an emergency spill response plan. The plan shall include provisions for spilled sewage to enter spill response measures, contain and destruction measures and transfer and funding for implementation of the plan. The plan shall be reviewed by the Los Angeles Regional Water Quality Control Board and Sanitation District No. 20, and reviewed and approved by the District of Public Works and the Director of Planning.	Preparation and Compliance Review of Emergency Spill Response Plan	Prior to Construction of Sanitary Sewer Line Within San Andreas Fault Zone	Los Angeles Regional Water Quality Control Board, Public Works Director		
§110.	Any sewer proposed for incorporation into the Sanitation Districts trunk sewer network for operation and maintenance, shall be reviewed and approved by the Sanitation District, prior to any construction.	Review and Approval of Site Plan	Prior to Any Construction	Sanitation District		
§111.	Onsite local sewers shall be designed and approved by both the County of Los Angeles Department of Public Works and the City of Palmdale.	Compliance Review of Design Measures	Prior to Any Construction	Los Angeles County Department of Public Works and City Planning Department		
	Fire Service					
§112.	Site-specific development plans shall require review and approval by the Los Angeles County Fire Department with respect to adequate fire flows, emergency access and building construction standards.	Review and Approval of Site-Specific Development Plans	Prior to Building Permit Issuance	Los Angeles County Fire Department		

BITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
113.	The applicant shall provide a pumper and patrol prior to the issuance of the 250th Certificate of Occupancy, and provide a fully operational fire station of an acceptable size and location as determined by the Consolidated Fire Protection District by the 1800 Certificate of Occupancy; fire service facilities and apparatus in proportion to the demand created by the development project, as required by the Los Angeles County Fire Department. These facilities shall include a fire station to be constructed within Planning Area 3B.	Provision of Necessary Equipment Construction of Fire Station Financing of Necessary Fire Service Facilities	a) Prior to issuance of 250th Certificate of Occupancy; b) Prior to issuance of 1800th Certificate of Occupancy Prior to Building Permit Issuance	Los Angeles County Fire Department; Building and Safety Department Los Angeles County Fire Department		
114.	If only one access is provided within Planning Area 3, the applicant shall install fire sprinklers within all residential units, provide an additional 25 foot width on the access road, and provide a helipad for fire service access for approval by the Los Angeles County Fire Department prior to issuance of occupancy permits.	Compliance Review of Design Measures; Site Inspection	Prior to Certificate of Occupancy Issuance	Los Angeles County Fire Department		
	Parks and Recreation					
115.	The applicant shall for park fees dedicate and construct the improvements for the proposed community, neighborhood and specialty park facilities shown in the Specific Plan as approved by the Director of Parks and Recreation pursuant to Ordinance 769.	Verification and Approval of Dedication; Review Site Plans	Prior to Development Application Approval	Director of Parks and Recreation		
116.	Prior to issuance of grading permits for each area of the Bitter Ranch Specific Plan, the applicant shall provide appropriate safety and etiquette signs for all offstreet trails, particularly at trail parking facilities and trail segments with limited sight distance, in order to minimize safety hazards to bicyclists, pedestrians and equestrians. The nature, location and language for these signs shall be approved by the Director of Planning and the City Traffic Engineer. Said signs may also include other restrictions/warnings such as discouraging damage to natural resources.	Compliance Review of Design Measures; Site Inspection	Prior to Grading Permit Issuance	City Planning Director, City Traffic Engineer and Inspector		
117.	The applicant shall install lighting along pedestrian trails located within the urban areas to provide adequate public safety as determined appropriate by the City Traffic Engineer. However, lights shall be designed and located so that direct lighting is confined to the property and lighting should not be of greater intensity (wattage) than other was necessary for public safety.	Compliance Review of Design Measures; Site Inspection	Prior to Certificate of Occupancy Issuance	City Traffic Engineer and Inspector		

RITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

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Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestone	Responsible Party	Initials	Date
117.	The title plan for the Ritter Ranch Specific Plan shall be reviewed for consistency with the title plan of recreation management plan that may be prepared for the portion of the Angeles National Forest abutting the project area. Where the plans are inconsistent, the Ritter Ranch title plan will be modified to conform with the Forest Service's plan.	Consistency Review of Forest Plans	Prior to Construction of Trails in Planning Areas 7 and 8	Director of Planning, U.S. Forest Service		
	Solid Waste Service					
118.	Information shall be provided, as reviewed and approved by the City, to business owners concerning the recycling services in the development area at the time of occupancy, at the time of occupancy. Said information shall identify nearby recycling centers, identify possible markets for recyclables in the area, and suggest to the business owners that they recycle glass, metal, paper, cardboard, and other materials to the maximum extent feasible at the time of occupancy.	Distribution of an Educational Pamphlet to Business Owners	Concurrent with Certificate of Occupancy Issuance	City Planning Department		
119.	The applicant shall distribute an educational pamphlet to homeowners at the time of occupancy describing the solid waste disposal problem, and methods of reducing solid waste impacts that are available to project residents as reviewed and approved by the City.	Distribution of an Educational Pamphlet to Homeowners	Concurrent with Certificate of Occupancy Issuance	City Planning Department		
120.	Trash compaction shall be provided in each residential unit.	Site Inspection	Prior to Certificate of Occupancy Issuance	City Inspector		
121.	The applicant shall provide solid waste recycling center(s) onsite to serve commercial, active recreation and residential areas, to the satisfaction of the City Director of Planning and Director of Public Works (to be verified at design-level review for each Development Application).	Site Plan Review	Verification at the Design Level Review for Development Applications	City Planning Director and Director of Public Works		
122.	Where applicable, the applicant shall comply with the provisions of the City's Source Reduction and Recycling Element and the City's Household Hazardous Waste Element after those elements are adopted by the City Council.	Compliance Review of Design Measures	Upon Adoption of Each Element	City Planning Department		

BITTER RANCH SPECIFIC PLAN MITIGATION MONITORING AND REPORTING CHECKLIST

Mit/ Cond. No.	Mitigation Measure/Condition of Approval	Monitoring and Reporting Process	Monitoring Milestones	Responsible Party	VERIFICATION OF COMPLIANCE	
					Initials	Date
123.	Maintenance The applicant shall pay a pro-rata share of a facility (maintenance building and offices) which will support the maintenance of streets, paths, parkways, open spaces, and drainage facilities within the development, within the timeframe required by the Director of Public Works. The construction of the facility shall include acquisition of a city, site development, temporary facilities, and construction of permanent facilities in stages as required to provide the necessary maintenance services required by the development infrastructure.	Payment of Pro-Rata Share	Prior to Development Application Approval	City Planning Director and Director of Public Works		
124.	The applicant shall pay a fee share of and/or agree to be purchased certain maintenance equipment necessary for maintenance operations at such time as they are needed for maintenance of project infrastructure.	Payment of Pro-Rata Share	Prior to Development Application Approval	City Planning Director and Director of Public Works		
125.	The applicant shall agree to participate in an Assessment District or Community Facilities District for the maintenance of streets, drainage facilities, paths, parkways, trails and other public facilities.	Approval of Assessment District	Prior to Development Application Approval	City Planning Director and Director of Public Works		
126.	Radio Communications The developer shall provide their pro-rata share towards the implementation of the findings of the radio communications needs study currently being prepared by the City. This may include providing a site for the construction of a radio repeater, construction of the repeater, or providing funding for the acquisition and construction of such improvements, as determined necessary by the City's Emergency Services Coordinator.	Payment of Pro-Rata Share; Review of Findings	Prior to Development Application Approval	City Planning Director and Emergency Services Coordinator		

VIII. INVENTORY OF UNAVOIDABLE SIGNIFICANT IMPACTS

VIII. INVENTORY OF UNAVOIDABLE SIGNIFICANT IMPACTS

A. EARTH RESOURCES

Project development will result in significant landform modification, although project design has incorporated substantial mitigation in the form of open space and clustered development.

Increased groundwater recharge resulting from landscape irrigation may significantly affect local groundwater levels and is considered unavoidable.

Ground shaking can be expected to occur in the project vicinity as a result of future seismic activity along known and undiscovered faults in the surrounding region. Compliance with applicable grading and building design requirements is expected to reduce potential impacts to the maximum extent feasible, however, significant impacts may still occur after mitigation measures are implemented.

B. AIR RESOURCES

Development of the Ritter Ranch area will have a significant impact on air quality because of its duration of buildout and magnitude of the proposed land uses. In addition, the development of Ritter Ranch in combination with other pending or approved projects will have a significant cumulative air quality impact. It is doubtful that a major development can have its air quality impact reduced to a complete level of insignificance given the reliance on the automobile as the primary means of travel, but a comprehensive emissions minimization program structured within an air quality element can have a measurable benefit for Ritter Ranch area and any other development's air quality impact.

C. WATER RESOURCES

Implementation of the proposed project will significantly alter the existing drainage patterns on the project site. No significant flood hazards are anticipated to occur with implementation of mitigation measures. Mitigation is anticipated to reduce water quality impacts to less than significant levels.

H. PUBLIC HEALTH AND SAFETY

Potentially unavoidable adverse impacts could occur following implementation of the required mitigation measures if in the future conclusive evidence links the ELF field associated with the power transmission lines to deleterious health affects.

I. TRAFFIC AND CIRCULATION

If the off-site improvements are not constructed by the time the Ritter Ranch development begins, a significant impact could occur to the existing circulation system. There is no funding mechanism in place for the City to provide these regional improvements (an Assessment District is in process to fund Elizabeth Lake Road improvements) although the Bouquet Canyon Road/Godde Hill Road segment would still be at LOS F with the Assessment District improvements.

J. CULTURAL RESOURCES

Upon implementation and completion of required mitigation measures, no unavoidable adverse impacts are anticipated. However, due to the potential significance of the rock art at CA-LAn 947, if this site cannot be avoided by development, mitigation of the adverse effects to an insignificant level may not be possible.

K. PUBLIC SERVICES AND UTILITIES

The project is anticipated to result in significant individual and significant cumulative impacts to police service (~~potentially~~), school (potentially), water, library facilities, solid waste, maintenance, and radio communications.

IX. EFFECTS FOUND NOT TO BE SIGNIFICANT

IX. EFFECTS FOUND NOT TO BE SIGNIFICANT

The City of Palmdale conducted an Initial Study on December 6, 1989 to determine the significant effects of the proposed project and the scope of the Environmental Impact Report. In the course of the evaluation, it was determined that certain aspects of the project would result in less than significant environmental impacts. These impacts were deemed less than significant due to the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

In accordance with CEQA Guidelines Section 15128, the following section provides a brief description of potential impact areas marked "no" on the Initial Study, indicating that the potential effect is considered less than significant. Impact areas marked as "maybe" or "yes" on the Initial Study are adequately examined in the appropriate section of the Environmental Impact Report.

A. EARTH

- A.5. *Is the parcel in an area of high shrink/swell potential as shown on Plate 14.6 of the Palmdale Community General Plan?* No.

The site has areas of low to medium shrink/swell potentials. Further soil studies will be required in areas of potential shrink/swell conditions. Standard mitigation measures will be recommended for portions of the project in these soil areas which will mitigate these conditions to a level of insignificance. Therefore, project implementation is not anticipated to result in significant impacts caused by soils with high shrink/swell potential (see Section IV.A of the EIR).

- A.7. *Is the proposed project in an area of potential subsidence according to Exhibit 14.9 of the Palmdale Community General Plan or a special study?* No.

The project site is in an area of low risk of subsidence according to Exhibit 14.9 of the Palmdale Community General Plan. Therefore, this project is not anticipated to result in significant impacts caused by subsidence.

F. NOISE

F.1. *If the project is residential or noise sensitive, is it located:*

a. *adjacent to the freeway?* No.

The proposed project is located in the center of the southwest foothills of the Antelope Valley, with no freeways running adjacent to the property.

b. *within 200 feet of the railroad?* No.

The project site is not within 200 feet of a railroad.

d. *within the Plant 42 AICUZ Zone?* No.

The project site is located several miles to the southwest of USAF Plant 42 and is not within the Plant 42 AICUZ Zone.

e. *near any major source of industrial or other noise not covered above?*
No.

The site is not near any major source of industrial or other noises. The project site, to the west, east and south, is surrounded by open space. To the north, the project site is bordered by existing single-family residential homes and the undeveloped Ritter Ridge.

I. RISK

I.1. *Does the proposal involve or would it be subject to a risk of an explosion on the significant release of hazardous substances (including, but not limited to, explosives, pesticides, chemicals or radioactive materials) in the event of an accident or upset?* No.

A review of the Specific Plan indicates that there are not aspects of the operation of the project, or the construction of the project which involve explosives, pesticides, radiation, chemicals or other hazardous substances.

Therefore, there is no risk of a release of hazardous materials which would result in a significant impact on the environment.

I.2. *Is the project in the airport potential crash zone?* No.

The project site is not located within the airport potential crash zone for USAF Plant 42.

J. HOUSING

J.1. *Will the project result in the displacement of people from the existing site?* No.

There is one occupied ranch house within the Ritter Ranch Specific Plan area. The occupants of the ranch house will be displaced. Due to the large scope of the proposed project, the displacement of a single residence is not considered a significant impact.

P. *Archaeological/Historical/Paleontological*

P.1. *Has the site inspection for paleontological, historical and archaeological resources been performed?* No.

Paleontological, historical and archaeological assessments were performed for the analyses within the EIR, but had not been performed at the time of the Initial Study preparation (see Section IV.J, CULTURAL RESOURCES).

X. ORGANIZATIONS AND PERSONS CONSULTED

X. ORGANIZATIONS AND PERSONS CONSULTED

LEAD AGENCY

City of Palmdale
38306 Ninth Street East
Palmdale, CA 93550

Ms. Sonja Wilson, Senior Planner
Ms. Laurie Lile, Associate Planner
Mr. Doug Dykhouse, Deputy Director of Public Works

PREPARERS OF THE ENVIRONMENTAL IMPACT REPORT

Robert Bein, William Frost & Associates
14725 Alton Parkway
Irvine, CA 92718

Ms. Barbara Eljenholm, Vice President, Environmental Services
Mr. Kevin Thomas, Director, Environmental Services
Ms. Rica Weber, Environmental Analyst
Mr. Bill Ryan, Environmental Analyst
Ms. Trina Rice, Environmental Analyst

SUBCONSULTANTS

Schaefer Dixon Associates
22 Mauchly
Irvine, CA 92718
Mr. Scott Magorien
Mr. Bob Lynn

Pacific Southwest Biological Services
P.O. Box 985
National City, CA 92050
Mr. Mitchel Beauchamp

RMW Paleo Associates
23352 Madero, Suite J
Mission Viejo, CA 92691
Ms. Marily Morgan

Mestre Greve Associates
280 Newport Center Drive, Suite 230
Newport Beach, CA 92660
Mr. Fred Greve

Stanley R. Hoffman Associates
11661 San Vicente Boulevard, Suite 505
Los Angeles, CA 90049
Mr. Dennis Wamban

APPLICANT

Ritter Park Associates
849 West Palmdale Boulevard
Palmdale, CA 93551
Mr. Steven R. Penn

Land Use Planning and Design

Azeka De Almeida Planning
10 Corporate Park, Suite 210
Irvine, CA 92714

Off-Site Civil Engineering

Brockmeier Consulting Engineers, Inc.
1304 Olympic Boulevard
Santa Monica, CA 90404-3726

Geotechnical Engineering

Buena Engineers, Inc.
1024 West Avenue M-4
Lancaster, CA 93534

Traffic and Transportation Planning

DKS Associates
2700 North Main Street, Suite 900
Santa Ana, CA 92701

Biology

Ecological Research Services
250 East 12th Street
Claremont, CA 91711

Air and Noise Engineering

Giroux and Associates
17744 Skypark Circle, Suite 210
Irvine, CA 92714

On-Site Civil Engineering

The Keith Companies
21300 Victory Boulevard, Suite 215
Woodland Hills, CA 91367

Archaeology/Paleontology

LSA Associates, Inc.
One Park Plaza, Suite 500
Irvine, CA 92714

Hazards Assessment

Leighton and Associates, Inc.
1737 Atlanta Avenue, Suite 1
Riverside, CA 92507

PUBLIC SERVICE AND UTILITY AGENCIES

County of Los Angeles
Office of the Sheriff
1010 West Avenue J
Lancaster, CA 93534
Mr. Gary E. Vance

Los Angeles County Fire Department
1320 Northeastern Avenue
Los Angeles, CA 90063
Forestry Division, Room 264
Ms. Lily Cusick

Southern California Edison Company
P.O. Box 4349
Lancaster, CA 93539
Mr. Fred Trueblood

Southern California Gas Company
P.O. Box 457
Tujunga, CA 91042
Mr. Santo Plescio

County of Los Angeles
Sanitation District No. 20
1955 Workman Mill Road
Whittier, CA 90607
Mr. Paul Prestia

County of Los Angeles
Department of Public Works
419 West Avenue J
Lancaster, CA 93534
Mr. Henry Roedigor

Palmdale Water District
2005 East Avenue Q
Palmdale, CA 93500
Mr. Dennis Lamoreaux

Antelope Valley Union High School District
44811 Sierra Highway
Lancaster, CA 93524
Mr. Richard Aitken

Westside Union School District
46809 70th Street West
Lancaster, CA 93536
Mr. Allen Sacks

Palmdale Disposal Company
P.O. Box 4040
Palmdale, CA 93550
Mr. Phil Arklin

Palmdale Department of Parks and Recreation
38260 10th Street East
Palmdale, CA 93550
Mr. John Lasagna

Pacific Bell
2130 Ward Avenue
Simi Valley, CA 93065
Mr. Scott Clissold

Palmdale School District
38300 Sierra Highway
Palmdale, CA 93590
Mr. Troy Sutterfield

Palmdale City Library
700 East Palmdale Boulevard
Palmdale, CA 93550
Ms. Linda Storsteen

XI. BIBLIOGRAPHY

XI. BIBLIOGRAPHY

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Air Quality Data. South Coast Air Quality Management District, 1986-1989.

Air Quality Handbook for Preparing EIRs. South Coast Air Quality Management District, revised April, 1987.

Air Quality Impact Assessment - Ritter Ranch Specific Plan. Prepared by Giroux & Associates, October 2, 1990.

Biological Resources Review Ritter Ranch Specific Plan, City of Palmdale Sphere of Influence and Vegetation and Wildlife Habitat Management and Mitigation Monitoring Plan. Prepared by Pacific Southwest Biological Services, Inc., July 30, 1990.

CEQA: The California Environmental Quality Act - Law and Guidelines. OPR, June, 1986 (as amended).

Circulation and Transportation Needs Study for the Palmdale Southwest Planning Area. DKS Associates, July, 1990.

Cultural Resources Assessment, Ritter Ranch (Los Angeles County). Prepared by LSA Associates, revised December, 1989.

Cultural Resources Assessment, Ritter Ranch (Los Angeles County). Prepared by LSA Associates, revised August and September, 1990.

Cultural Resources Overview of the Ritter Ranch Project Area. Prepared by RMW Paleo Associates, August 29, 1990.

Draft Traffic Impact Study for Ritter Ranch Specific Plan. Prepared by DKS Associates, June, 1990.

Final 1989 Air Quality Management Plan. South Coast Air Quality Management District, March, 1989.

General Plan: Land Use Element. City of Palmdale, 1976 (and proposed General Plan, 1990).

Historical Review and Site Reconnaissance to Assess the Potential for Onsite Hazardous Materials/ Waste Contamination on the 11,500± Acre Ritter Ranch Site (Palmdale Area/ Los Angeles County, California). Prepared by Leighton and Associates, Inc., December 14, 1989.

Impact Assessment: Draft Baseline Projection. SCAG, updated March, 1987.

Mohave Ground Squirrel Survey on the Ritter Ranch Property (Los Angeles County). Prepared by Ecological Research Services, June 6, 1990.

National Oceanic and Atmospheric Administration Climatological Data Annual Summary.

Noise Impact Assessment. Ritter Ranch Specific Plan. Prepared by Giroux & Associates, April 17, 1990; October 2, 1990.

Paleontological Resource Assessment (Part B), Ritter Ranch Project Southwest of Palmdale (Los Angeles County). Prepared by RMW Paleo Associates, revised December, 1989.

Phase II Archaeology at Ritter Ranch. Prepared by LSA Associates, June 14, 1991.

Preliminary Geotechnical Engineering Report, Ritter Ranch Property/Elizabeth Lake Road. Prepared by Buena Engineers, Inc., November 1, 1989.

Ritter Ranch: A Predevelopment Biological Assessment. Prepared by Ecological Research Services, October 9, 1989 (Revised November 9, 1989).

Ritter Ranch Drainage Concept Study. Prepared by the Keith Companies. November, 1989.

Ritter Ranch Draft Specific Plan. Prepared for the City of Palmdale. August 5, 1991.

Ritter Ranch Specific Plan - City of Palmdale - Fiscal Impact Report. Prepared by Stanely R. Hoffman Associates, September 21, 1990.

Ritter Ridge, California Quadrangle. U.S. Department of the Interior Geological Survey, 1958 (Photo Revised 1974).

Sleepy Valley, California Quadrangle. U.S. Department of the Interior Geological Survey, 1958 (Photo Revised 1974).

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Summary Report - Preliminary Site Evaluation for the 11,500+ Ritter Ranch Parcel. Prepared by Schaefer-Dixon Associates, May 25, 1990.

Traffic Flow Map 1990. City of Palmdale Public Works Department.

XII. COMMENTS AND RESPONSES

XII. COMMENTS AND RESPONSES

LIST OF COMMENTING PARTIES AND RESPONSES

1. City of Santa Clarita
Ms. Lynn M. Harris, Deputy City Manager/Community Development
2. Quartz Hill Water District
Mr. Martin Koppel
- * 3. Lazy T Ranch
Mr. Jay A. Tremblay
- * 4. Messer Ranch
Mr. Daniel Witting
5. County of Los Angeles Fire Department
Mr. Michael Freeman
6. Meyer, Mohaddes Associates, Inc.
Mr. Abbas Mohaddes, Principal
- * 7. Ms. Ginny Hazell
- * 8. Realty World
Ms. Inez Neilson
- * 9. Mr. William T. Wood
- *10. The Printing Solution
Mr. Bill Meyer
- *11. Mr. John Grimm
Mrs. Linda Grimm
- *12. Hunt Realty, Inc.
Ms. Pat Hunt
13. Christensen, White, Miller, Fink and Jacobs
on behalf of Ritter Park Associates (Applicant)
Ms. Clare Bronowski
14. California State University, Bakersfield
Mr. Mark Q. Sutton, Associate Professor

* = Favorable Comment

LIST OF COMMENTING PARTIES AND RESPONSES

15. SCAG
Ms. Anne Baker, Director of Planning
- *16. Antelope Valley Board of Trade
Mr. Howard L. Brooks
17. Los Angeles County Department of Regional Planning
Mr. James E. Hartl, AICP, Director of Planning
18. Desert Citizens Against Pollution
Mr. Joe Blackburn
19. Antelope Valley Archaeological Society, Inc.
Ms. Melinda Wilson, AVAS Environmental Review Committee Chair
20. Leona Valley Town Council
Ms. Mary Ann Floyd
21. Crosby Mead Benton Associates
on behalf of CR Energy (Valley Ranch)
Mr. Mel Roop
22. KWC Engineers, Inc.
Mr. L.C. Bevington
23. City of Santa Clarita
Ms. Lynn M. Harris, Deputy City Manager/Community Development
24. Mr. David D. Earle
25. Department of Water Resources
Mr. Keith Barrett, Chief, Division of Operations and Maintenance
26. California Integrated Waste Management Board
Mr. George H. Larson, Manager, Environmental Assessment Branch
27. California Department of Transportation - District 07
Mr. Wilford Melton, IGR/CEQA Coordinator, Advance Planning Branch
28. U.S. Fish and Wildlife Service
Mr. Steven M. Chambers, Office Supervisor

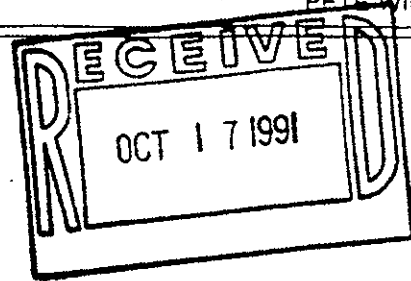
* = Favorable Comment

LIST OF COMMENTING PARTIES AND RESPONSES

29. Antelope Valley Archaeological Society, Inc.
Mr. Philip Raneri, Member, Environmental Review Committee
30. South Coast Air Quality Management District
Ms. Cindy S. Greenwald, Planning Manager
- *31. Mr. Paul L. Frise, Antelope Valley College Instructor
32. San Bernardino County Museum
Mr. Scott Springer, Site Records Manager, Earth Sciences
33. California Regional Water Quality Board
Mr. Hisam A. Baqai, Supervising Engineer
34. Antelope Valley Union High School District
Mr. Kenneth Brummel, Superintendent

* = Favorable Comment

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814



Oct 15, 1991

LAURIE LILE
CITY OF PALMDALE
38306 9TH STREET EAST
PALMDALE, CA 93550

Subject: RITTER RANCH SPECIFIC PLAN
SCH # 90010124

Dear LAURIE LILE:

The State Clearinghouse has submitted the above named draft Environmental Impact Report (EIR) to selected state agencies for review. The review period is now closed and the comments from the responding agency(ies) is(are) enclosed. On the enclosed Notice of Completion form you will note that the Clearinghouse has checked the agencies that have commented. Please review the Notice of Completion to ensure that your comment package is complete. If the comment package is not in order, please notify the State Clearinghouse immediately. Remember to refer to the project's eight-digit State Clearinghouse number so that we may respond promptly.

Please note that Section 21104 of the California Public Resources Code required that:

"a responsible agency or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency."

Commenting agencies are also required by this section to support their comments with specific documentation. These comments are forwarded for your use in preparing your final EIR. Should you need more information or clarification, we recommend that you contact the commenting agency(ies).

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact Tom Loftus at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

A handwritten signature in dark ink, appearing to read "David C. Nunenkamp".

David C. Nunenkamp
Deputy Director, Permit Assistance

Enclosures

Memorandum

To : Director
State Clearinghouse
Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814

Date : OCT 11 1991

File No.: AUG 31 1991

Subject: Agency Comments
SCH No. 616154

From : Office of the Secretary

Attached are individual comments of departments, boards, or commissions within The Resources Agency requested by your State Clearinghouse Notice of Completion and Environmental Document Form, on the subject item. Agencies responding to your request are checked at the bottom of this page.

Assistant Secretary for Resources

Attachment(s)

Distribution:

Department of Boating and Waterways
Department of Conservation
Department of Fish and Game
Department of Forestry
Department of Parks and Recreation
Department of Water Resources
Air Resources Board
Colorado River Board
California Waste Management Board
State Water Resources Control Board
The Reclamation Board
California Coastal Commission
California Energy Commission
San Francisco Bay Conservation and Development Commission
State Lands Commission

Notice of Completion

Appendix F

State Clearinghouse, 1400 Ninth Street, Sacramento, CA 95814 (916) 550-6111

SCH # 900-1111

Project Title: Ritter Ranch Specific Plan

Local Agency: City of Palmdale

Contact Person: LAURIE LEE

Street Address: 38306 9th Street East

Phone: (805) 272-9613

City: Palmdale

Zip: 93550

County: Los Angeles

Project Location

County: Los Angeles

City/Nearest Community: Palmdale

Cross Street: Elizabeth Lake Rd/Bouquet Canyon Rd

Total Acres: 11.074

Assessor's Parcel No. various

Section: 15-16

Twp. 6N

Range: 13W

Sec: SBM

Within 2 Miles: San Hwy 14

Waterways: California Aqueduct

Airports: N/A

Railways: N/A

Schools: Leona Valley

Document Type

CEQA:

☐ MOP

☐ Early Conc

☐ Neg Dec

☒ Draft EIR

☐ Supplement/Subsequent

☐ EIR (Prior SCH No.)

☐ Other

NEPA:

☐ NOI

☐ EA

☐ Draft EIS

☐ FONSI

Other:

☐ Joint Document

☐ Final Document

☐ Other

Local Action Type

☐ General Plan Update

☒ General Plan Amendment

☐ General Plan Element

☐ Community Plan

☒ Specific Plan

☐ Master Plan

☐ Planned Unit Development

☐ Site Plan

☐ Easement

☒ Preserve

☐ Use Permit

☐ Land Division (Subdivision, Parcel Map, Tract Map, etc.)

☒ Annexation

☐ Redevelopment

☐ Coastal Permit

☐ Other

Development Type

☐ Residential: Units 7200 Acres

☐ Office: Sq. ft. Acres Employees

☐ Commercial Sq. ft. Acres Employees

☐ Industrial: Sq. ft. Acres Employees

☐ Educational: 7 school sites

☐ Recreational: golf course

☐ Water Facilities: Type MCD

☐ Transportation: Type

☐ Mining: Mineral

☐ Power: Type Waste

☐ Waste Treatment: Type

☐ Hazardous Waste: Type

☐ Other:

Project Issues Discussed in Document

☒ Aesthetics/Visual

☐ Agricultural Land

☐ Air Quality

☐ Archaeological/Historical

☐ Coastal Zone

☐ Drainage/Stormwater

☐ Economic/Job

☐ Fiscal

☒ Flood Plain/Flooding

☒ Forest Land/Fire Hazard

☐ Geology/Seismic

☐ Minerals

☒ Noise

☒ Population/Housing Balance

☒ Public Services/Facilities

☒ Recreation/Parks

☒ Schools/Universities

☐ Sewer Systems

☐ Sewer Capacity

☒ Soil Erosion/Compaction/Grading

☐ Solid Waste

☒ Toxic/Hazardous

☒ Traffic/Circulation

☒ Vegetation

☒ Water Quality

☒ Water Supply/Groundwater

☒ Wetland/Riparian

☒ Wildlife

☒ Growth Inducing

☒ Land Use

☒ Cumulative Effects

☐ Other

Present Land Use/Zoning/General Plan Use

The project site is currently vacant. Past uses include agriculture. The zoning is presently L.A. Co. A-2-2. The General Plan land use designation is L.A. County Nonurban.

Project Description The applicant is proposing a residential master planned community on 10,625 acres. The project will include approx. 7200 residential units, 73 acres of commercial, school sites, a golf course, and the balance as roadways, easements, and open space. An additional area of approx. 449 acres is proposed for annexation only.

CLEARINGHOUSE CONTACT: Tom Loftus
(916) 445-0613

STATE REVIEW BEGAN: 8.29.91

DEPT REV TO AGENCY: 10.7

AGENCY REV TO SCH: 10.11

SCH COMPLIANCE: 10.15

PLEASE NOTE SCH NUMBER ON ALL COMMENTS

PLEASE FORWARD LATE COMMENTS DIRECTLY TO THE LEAD AGENCY ONLY

CHT SWT

Resources

Conservation

Fish & Game

Parks & Rec/OHP

Recreation

ous

Caltrans 1

CHT SWT

State/Consumer Svcs

Reg. VQCS 91

Vol. 1416 Collections

MAHC

State Lands Comm

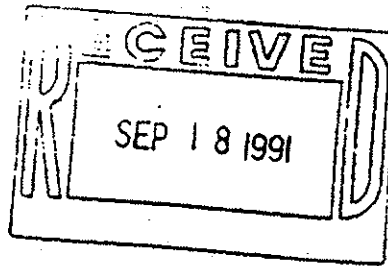
COMMENT NO. 1

23920 Valencia Blvd.
Suite 300
City of Santa Clarita
California 91355

Phone
(805) 259-2489
Fax
(805) 259-8125

City of
Santa Clarita

September 10, 1991



Ms. Laurie Lile, Associate Planner
City of Palmdale
Planning Department
38306 9th Street East
Palmdale, California 93550

RE: RITTER RANCH SPECIFIC PLAN

Dear Ms. Lile:

Thank you for sending a copy of the Draft Ritter Ranch Specific Plan to the City of Santa Clarita. We appreciate the courtesy of receiving early information regarding projects such as this.

Last Thursday, September 5, we received the Draft Environmental Impact Report (DEIR). From our preliminary review of both the Specific Plan and the DEIR, it appears that the City may have some concerns with the scope of the traffic analysis. After we have completed reviewing the DEIR, we will provide you with our comments on both documents.

Again, thank you for the opportunity to review and comment on the Ritter Ranch project.

Sincerely,

A handwritten signature in cursive script, reading "Lynn M. Harris".

Lynn M. Harris
Deputy City Manager/
Community Development

LMH:CMK:580

Carl Boyer, 3rd
Mayor

Jill Klajic
Mayor Pro-Tem

Jo Anne Darcy
Councilmember

Jan Heidt
Councilmember

Edward "Buck" McKeon
Councilmember

a

Response No. 1

City of Santa Clarita

Ms. Lynn M. Harris

- 1a. Letter dated September 10, 1991, has been received, and no comment is required. Please refer to Response No. 23 regarding traffic comments on the Draft EIR indicated in your October 15, 1991 comment letter.

COMMENT NO. 2

September 17, 1981

Lori Lile
Tara Mullinger
Planning Department
City of Palmdale
3306 7th St. East
Palmdale, CA 93550

SEP 17 1981

RE: Environmental Impact Report for Ritter Ranch
RE: Specific Plan for Ritter Ranch

As a member of the Board of Directors of a local water agency (Quartz Hill Water District), I am very concerned about the Ritter Ranch and/or City Ranch developments.

My concern or worry in the larger sense is whether the local water supply can continue to be adequate for the needs of continued building in the massive amounts that are contemplated in developments such as these and, in particular, these developments of which it is my understanding that Ritter Ranch contains 7,200 homes and City Ranch 5,200, for a combined total of 12,400 homes.

Then, and in particular, I am even more directly concerned, worried and frustrated in that it is my understanding that the "emergency" water supply for Ritter Ranch, and I would imagine also in the future for City Ranch, is to be supplied by wells in the area of Avenue H and 70th St. West. I view this as a direct threat to the water supply of the Quartz Hill/Lancaster areas and the other areas which are supplied from that aquifer. As a water commissioner, I am worried about being able to supply those developments that have 100 to 200 homes planned. But the thought of supplying 12,400 homes from the same aquifer causes me grave concerns as I do not feel there is water supply to warrant that burden. I consider this an already over-taxed aquifer (over-taxed to where I feel we are drawing air into the water, thus giving the water a milky appearance upon first being supplied). As far as I'm concerned, this is a tell-tale sign of over-taxing the water supply. I have heard these same complaints of "milky water" from people at other agencies through-out the valley and co-incidentally mostly from the area of Palmdale. So I can understand why Palmdale would like the "emergency" water for their Ritter Ranch project to come from some other area, such as Lancaster/Quartz Hill.

I, however, consider that situation nothing more than a water grab by the City of Palmdale. I have heard the argument that my fears should be mitigated by the fact that the primary source of water for Ritter Ranch will be A.V.E.K.. Let me categorically state my fears are not mitigated in the least by that thought, for the following reasons:

- A. During the last year of this current drought situation, I believe it has become apparent to everyone how unreliable the State Water System which supplies A.V.E.K. can become and, in fact, A.V.E.K. has had to resort to groundwater pumping which may work for awhile as a temporary stop-gap.
- B. It is my concern that if we allow these massive projects to continue just because A.V.E.K. is considered to be the prime supplier, we may well, at sometime in the future, find ourselves in a position where the existing residents, the new residents who will occupy these

developments, as well as A.V.E.K. will all be pumping from the groundwater (aquifer). It is my concern that, in the future we may find ourselves in a position where the number of people that need to be served is far in excess of groundwater supply that we will have available to serve them. It is my concern that proper planning needs to be done now to avert that type of catastrophic situation.

- C. It is also my understanding that once the aquifer area has been over-pumped (as I'm sure it would be in an emergency situation as described above) that over-pumping will cause a condition which will ruin the ability of that aquifer to hold water in the manner in which it did prior to when the over-drafting occurred. It is my understanding that that could lead to a condition where the next time that aquifer was called upon in an emergency situation, it would not have the ability of sustained pumping for longer than a very short-duration, thus precluding that aquifer from meeting any sustained emergency situation.

Therefore, it is my opinion that, without proper planning and consideration and mitigation of those fears I have expressed, we may be setting ourselves up for a catastrophic situation where we have more people to serve than ability to serve them. Further, it is my opinion that the idea of pulling emergency water for a Palmdale project in Leona Valley from an area that serves Quartz Hill and Lancaster is nothing more than an ill-advised, unconscionable water grab from an area that is already over-taxed and will probably become even more over-taxed in the future. To give a simple analogy, you can't put ten people on a soda with straws and expect it to last forever.

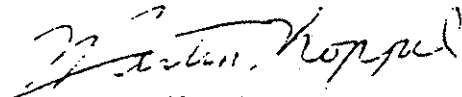
One more point I would definitely like to get across in this letter. There seems to me to be some theory expressed by the members of both Palmdale and Lancaster City Councils that if a water agency gives a developer a Will Serve Letter, that there has been some degree of planning or forethought of water supply for future use before issuing that letter. Actually, I believe that to be a dangerous misconception and not a valid thought on which the City Council should rely on for planning for the future. It is my understanding that as members of a water board, we are not to be concerned, are not allowed to be concerned with what is good and reasonable planning for future water needs. It is my understanding that we are mandated that if we have water to serve, we must serve water to those developers that request it. The problem I have constantly run into is that everytime we try to say that there may not be enough water to serve all these developments, we receive back the same answer. That is that A.V.E.K. either has plenty of water to serve or has water adequate to meet the needs of that particular development or will not give us written notice that they do not have enough water to serve these developments, thereby putting us in a Catch-22 situation. I find that I am in a legal position where I feel I must continue to give out these Will Serve Letters even though some of us (and I know that I do) may have very grave concerns in continuing to give out these Will Serve Letter and placing further burden upon the groundwater supply. It seems a non-sensical situation to me to have to give out Will Serve Letters without being able to make any plans as to the adequacy of future water supplies to serve the area. So when I hear a mayor or a member of the City Council use as justification for allowing continued development to occur that it is obvious to them that there must be water to serve these developments because they were given a Will Serve Letter, then I suggest they should try to understand my thoughts and concerns which are:

1. We are a Water board and are not allowed to be a planning entity and plan for the adequacy of the water supply for the future.
2. Planning should not be based on the fact that a water agency, which can not consider that planning, has given out a Will Serve Letter.

I would suggest strongly to all mayors and members of City Councils and to all Planning Commissioners that they should fully understand that the planning burden for the water supply falls directly on them. I do not agree with this system, but unfortunately I find it the reality with which I must deal and I want every voter and every elected official to understand the reality of the situation. It absolutely galls me to hear a member of a City Council or a Planning Commissioner say "there must be adequate water out there because the water agency gave them a Will Serve Letter". During the last year, I have been voting for Will Serve Letters only because I could not find the legal position to not do so, despite my request to the manager of A.V.E.K. to supply us with A.V.E.K.'s written position. I have finally found myself voting against Will Serve Letters despite the knowledge that should that Will Serve Letter not be issued, the denial of that Will Serve Letter could, and in all probability would, be successfully challenged in court. At some point, I feel a man's conscience must become his guide. Bottom line is in a situation where we have more people to serve water to than we have water available to serve, then and only then will my concerns, out of necessity, be taken seriously. It was approximately four years ago that I was expressing my concerns that A.V.E.K. may not be a reliable source of water as it was then considered. In fact, three years later I feel my concerns were fully realized as reality. I am in hopes that the concerns I am expressing now will help avert them becoming a reality in the future. But I, unfortunately, hold out little hope of that being the case.

Therefore, I request that the City Councils, the Board of Supervisors and the respective Planning Commissions should understand the situation and take the responsibility and should fully understand their obligation to provide for a safe and reliable water supply for the residents they serve so that we, the water agencies, can do our job of supplying that water in a safe and beneficial manner.

Sincerely,



Martin Koppel
P.O. Box 4055
Lancaster, CA 93539
(805) 943-4628

Response No. 2

Quartz Hill Water District

Mr. Martin Koppel

- 2a. Comments have been acknowledged, and will be considered by the City during deliberation on the project and EIR. As is indicated in the Draft EIR, the Ritter Ranch Specific Plan project will require approximately 7,000 acre-feet of water per year (also see Response No. 20ss). The project will require annexation to the Los Angeles Waterworks District No. 34, which presently obtains its water supply from the AVEK Water Agency. Water system improvements will be required to provide an adequate supply of water to the Ritter Ranch project area. Although required mitigation measures will substantially reduce project impacts, impacts are anticipated to remain both on an individual and cumulative level.

New groundwater wells are proposed for development west of 60th Street West along Avenue H, and will pump approximately 6,000 gallons of water per minute (gpm) from the Lancaster Subunit. In the event that the AVEK supply to the Ritter Ranch project site is interrupted, water will be supplied to the site from the proposed new wells to be built as mitigation for the project in case of an emergency situation. Please refer to pages 273-278 of the Draft EIR text for a detailed discussion.

- 2b. As noted in testimony at the October 24, 1991 Planning Commission Meeting, AVEK is, by policy, considered the primary water source for Antelope Valley non-agricultural development.
- 2c. Please refer to Response No. 2a. Additionally, as indicated by Mr. Charles Brockmeier of Brockmeier Consulting Engineers, Inc. at the October 24, 1991 Planning Commission Meeting, groundwater levels in the Lancaster Groundwater Subunit of the Antelope Valley have actually risen over the past several years due to reduced agricultural demand. Information obtained from the U.S. Geological Survey's Water Resources Investigations Report No. 84-4081 indicates that a well field located along Avenue I between 70th and 90th Street West should be capable of supplying the required water for Ritter Ranch.
- 2d. Comment has been acknowledged, and will be considered by the City during project deliberations.

SEP 10 1991

Palmdale Planning Commission/department

HAVING LIVED ON ELIZABETH LAKE RD for over the past 18 YEARS in the LEONA VALLEY AREA, AND BEING SURROUNDED by the property know as the "Ritter Ranch" to the East, South and West of our 15 ACRES know as the "Lazy T Ranch".

I AM VERY FAMILIAR with the Ranch Property, ELIZABETH LAKE RD, AMARGOSA CREEK AND SOME OF THE RANCHES E.I.R. AFFECTS.

I FEEL THE E.I.R. SHOULD BE APPROVED, AS THE DEVELOPER OF Ritter Ranch ~~WE~~ HAVE AGREED TO MANY NEEDED IMPROVEMENTS AND COMPROMISES WITH PALMDALE, AND LEONA VALLEY FOR THAT MATTER. FOR EXAMPLE 84, 2 ~~ACRES~~ ^{ACRE} lots along BOUGUET CYN. AND ELIZABETH LAKE RD WHEN IT SEEMS 1 ACRE lots would be MORE THAN ADEQUATE, ESPECIALLY WITH 7,600 ACRES OF OPEN SPACE.

WE ALL (INCLUDING LEONA VALLEY) HAVE KNOWN Ritter Ranch would be developed someday.

WE FOUGHT AGAINST THE STATE BUYING THE PROPERTY (IN APPROX. 1975) FOR AN OFF ROAD VEHICLE PARK, WHICH IS NOW HUNGRY VALLEY.

We fought Against the windmill Electric generators (in approx. 1985)

We can't and shouldn't fight any development of the property (when we don't own it) and especially when the developer in his E.I.R. is agreeing to pay for so much at his expense that Leona Valley and Palmdale will be able to enjoy including - Horse trails, bike trails - NATURE PRESERVES ETC.

The way it has been over the past 20 years the Ritter Ranch is totally closed to EVERYONE, EVEN HORSE RIDERS AND HIKERS and of NO benefit OR ENJOYMENT to RESIDENTS of the AREA OR ELSEWHERE.

Elizabeth LAKE RD NEEDS IMPROVEMENT. 2 Lanes ARE just too DANGEROUS, the CURVES AND NARROW PLACES ARE ALSO UNSAFE driving AREAS. THE people of Leona Valley HAVE BEEN complaining about it for YEARS. (But now that it's tied in with development, they want it left ALONE)

Try pulling onto OR getting off of 25th St. West AND Elizabeth LAKE RD in the Morning OR onto AVE. P about 7:30 and then say the ROADS don't OR won't NEED widening.

AMARGOSA CREEK NEEDS Controlling. (Have the people of Leona Valley forgot OR the NEW ONE NEVER SEEN) THE CREEK forcing the Roads Closed for days At 10th West & P and from 25th St West to Godde Pass All

Along Elizabeth Lake Rd., with the
AMARQOSA literally tearing out Elizabeth
Lake Rd in some areas and causing no
driving access to homes off Eliz. Lk. Rd
for weeks.

As a resident of the area directly
affected by Ritter Ranch, I approve
the E. I. R. and feel the Ritter
Ranch Project will be a positive
development for the West Valley. and
Leona Valley and Palmdale in long term.

Jay A. Tremblay

Jay G. Tremblay

4218 Elizabeth Lake Rd
Palmdale Cal. 93551

Response No. 3

Lazy T Ranch

Mr. Jay A. Tremblay

- 3a. Comment had been acknowledged and will be taken into consideration by the City during project deliberations.

COMMITMENT NO. 4

Messer Ranch Owner's

**RESPONSE TO DRAFT
ENVIRONMENTAL IMPACT REPORT**

**SCH No. 90010124, Ritter Ranch Specific Plan
Dated August 26, 1991**

To: Ms. Laurie Lile
City of Palmdale Planning Department
38306 - 9th Street East
Palmdale, CA 93550

In review of the above-referenced *Draft Environmental Impact Report*, we respectfully submit this Response for clarification and/or incorporation into the Final Report.

As a general statement and understanding, the "Project" which is the subject of the *Draft Environmental Impact Report* (SCH No. 90010124) consists of the Ritter Ranch Specific Plan and associated annexation areas, which includes the 208-acre Messer Ranch. Therefore, general environmental issues associated with the Messer Ranch have been incorporated (to the extent possible without a Specific Development Plan, based on maximum allowable densities within the City's General Plan), and evaluated within the above-referenced document.

Page 3 -- Summary - Proposed General Plan Land Use Designations.

The proposed use for the Messer Ranch is shown as non-urban conditional with a zone of A-1-1 and 208 permitted dwellings. The other listed annexation areas are listed just non-urban. The word, "conditional", used with the Messer Ranch designation is not defined. It is our understanding, based on previous decisions by the Planning Staff that the intent is that the Messer Ranch, while just over 200 acres, would be processed as a Tentative Map, as opposed to a Specific Plan, and evaluated with the same criteria that will be applied to the Ritter Ranch. This decision by the Planning Staff was based on the Messer Ranch's unique relationship with the Ritter Ranch, being basically a hole in the Ritter Ranch donut.

a

Page 18 -- Environmental Summary, Land Use, Impacts, Other Annexation Areas.

We certainly understand and agree that future development application on other annexation areas will require separate environmental review in order to address specific issues associated with specific development plans. It is assumed that this review could result in a negative declaration if deemed appropriate. However, if a negative declaration is not granted, it seems that the global or general impacts caused by development of other annexation areas are adequately covered within this environmental document. Thus, if this document is certified, it seems that specific environmental issues associated with future onsite development should be evaluated within a Supplemental Environmental Impact Report.

Page 20 -- Traffic and Circulation, Impacts, Other Annexation Areas.

Because traffic impacts from "other annexation areas" are based on the maximum land use densities allowable by the General Plan, it seems that further environmental review would only be required if the actual traffic count exceeds the amount anticipated within this document. If this is the case, this information should be evaluated within a Supplemental Environmental Impact Report.

Page 44 -- Background and History.

It should be made clear that while there is still an old barn and some associated equipment which was evidently used in conjunction with the earlier winery operation, the winery does not exist today. The phrase "whose winery still stands on the adjacent Messer Ranch" could be misleading.

Page 48 -- Annexation Areas.

At the top of the page, the E.I.R. refers to "*a large orchard located on the Messer Ranch Site.*" It should be pointed out that this is an old almond orchard which has not been harvested or maintained for quite a while. Because of this, and because the trees have not been on any kind of irrigation system throughout our recent drought conditions, the trees are in extremely poor condition. It would most likely not be economically feasible to restore the orchards to a point where they would produce a profitable crop.

Exhibit 4 -- Community Concept Plan.

The alignment of the circulation elements shown on Exhibit 4 which pass through the Messer Ranch, consisting of the proposed Ritter Ranch Road and a second loop road across the western portion of the property, are conceptual only and have not been

approved as shown by the Messer Ranch owners. We have been working with the Planning and Public Works Staff and the Ritter Ranch team to determine an acceptable alignment to all parties.

f

Page 155 – Table 11, Referred Development Envelope Setback Distances.

It is not clear from the Table whether the setbacks listed under wildlife corridor is the total width required or actually double the distance listed; i.e., for example, is the 400 feet listed for single family residential a 400-foot wide corridor centered on what is established to be the center line or 400 feet in each direction from the center line for a total corridor of 800 feet?

g

In most cases, the setback distances listed in Table 11 seem excessive.

Page 157 – Biological Resource Section, Mitigation Measures.

While one can consider, or anticipate, that man-made structures, such as oversize culverts, will in fact allow for or facilitate wildlife movement, in many cases they simply do not work because wildlife can find other routes to take to avoid the built environment. Given the extent of the open space acreage being left, providing for alternative wildlife corridor alignments to those which exist today should also be considered as mitigation. Certainly, a means to cross major or secondary road systems, such as culverts, need to be installed; however, alternative corridor locations other than canyons such as Rogers Creek, Pine Creek or Ritter Canyon should be considered in order to more adequately isolate the wildlife from proposed development.

h

Today, Ritter Canyon shows no evidence that it is, in fact, a significant wildlife corridor. This may be due to the drought conditions or better access points to the west. Because of the Ritter Ranch plan, however, which proposes development west of the Messer Ranch, wildlife movement may be diverted from Rogers and Pine Creeks to Ritter Canyon. Because of the size and topography of the Messer Ranch, this newly created corridor would impose a significant hardship on the ability to develop the Messer Ranch with a compatible land use to the proposed Ritter Ranch Specific Plan. While a plan to develop the Messer Ranch has not been formally submitted, this area should not be viewed within this E.I.R. review process as future open space when evaluating possible wildlife corridors.

i

Page 185 – Existing Conditions, 4th Paragraph.

The extensive orchard on the Messer Ranch, which is in a declining condition, is a non-harvested almond orchard, not an apple orchard as stated.

j

Thank you for the opportunity to respond to the *Ritter Ranch Specific Plan and Other Annexation Areas Environmental Impact Report*. By addressing the issues and concerns herein, we find the Report to be thorough and complete and, through the proper Public Hearing Process, support certification.

Very truly yours,

A handwritten signature in black ink, appearing to read "D. Witting". The signature is stylized with a large, looped "D" and a trailing flourish.

Daniel L. Witting

cc: Gary/Don Fischer
Dave Hines

Response No. 4

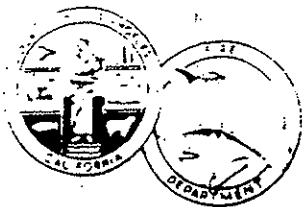
Messer Ranch Owners

Mr. Daniel L. Witting

- 4a. Comment had been acknowledged, and the assumption is correct as stated. The word "conditional", used with Messer Ranch proposed land use designation, indicates that the Messer Ranch property will be subject to the development standards and guidelines of the Ritter Ranch Specific Plan.
- 4b. A Supplemental EIR acts as a "supplement" to an EIR prepared for a specific project, and does not apply to a different project. Although the annexation of these areas was addressed in this EIR, development on these annexation areas was not addressed, and would require separate environmental review and documentation.
- 4c. As stated in Response No. 4b, a Supplemental EIR would not be adequate for development in the "other annexation areas", as this EIR only covers annexation of these areas, not development on them. Portions of this EIR may be used as reference for future development of the annexation areas, however separate environmental review will be required.
- 4d. Comment has been acknowledged. Text in the Final EIR will be modified to read, "Previous Ritter Ranch ownership was by the Ritter family. A few vacant remnants of the Ritter Ranch winery, including an old barn and some associated equipment, still stand on the adjacent Messer Ranch."
- 4e. Comment has been acknowledged. Text in the Final EIR will be modified to read, "a large almond orchard located on the Messer Ranch site which has not recently been harvested or maintained."
- 4f. Comment had been acknowledged. Exhibit 4, COMMUNITY CONCEPT PLAN, is a conceptual plan and is currently in the review and approval process. Ritter Ranch Road and a second loop road (on the Messer Ranch property) are indicated on the Community Concept Plan as proposed circulation routes through the Messer Ranch property, and are currently being reviewed by the Messer Ranch owners, the City of Palmdale Planning and Public Works Staff, and Ritter Ranch representatives.
- 4g. The setbacks for the wildlife corridor, as indicated on Table 11, suggest that setback distances be 400 feet from the center line on either side of a wildlife corridor, for a total wildlife corridor width of 800 feet. These setbacks are advisory, as is noted on page 156 of the Draft EIR. Actual setback distances will be determined at the time that development applications are reviewed when site-specific biological reports are submitted.
- 4h. The project is anticipated to disrupt wildlife access corridors to water in Amargosa Creek, and in order to mitigate this impact, bridges or oversized culverts are necessary to provide adequate movement of wildlife on the site and into other portions of the region. The PSBS Biological Resources Review indicates that the magnitude of wildlife movement probably cannot be fully assessed due to the fact

that several canyons provide corridor access to Amargosa Creek. However, PSBS notes in their review that Rogers Creek Canyon, Pine Creek Canyon, and Ritter Canyon provide the best access opportunity. Additional wildlife crossings will be accommodated as part of Elizabeth Lake Road widening.

- 4i. Comment will be taken into consideration. The Messer Ranch, as a whole, will not be viewed as future open space for possible wildlife corridors during the review process for this EIR. However, as noted in Response 4h, Ritter Canyon is considered an important wildlife corridor that should be considered in the planning design and approval of any development located in the corridor vicinity.
- 4j. Comment had been acknowledged. Text will be modified to read, "almond orchard", rather than "apple orchard", in the Final EIR text.



COMMENT NO. 5
COUNTY OF LOS ANGELES

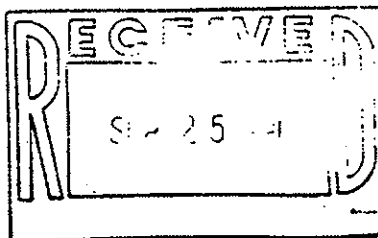
FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

(213) 267-2481

P. MICHAEL FREEMAN
FIRE CHIEF
FORESTER & FIRE WARDEN

September 19, 1991



Ms. Tara Hullinger
City of Palmdale
38306 Ninth Street East
Palmdale, CA 93550

Dear Ms. Hullinger:

SUBJECT: ENVIRONMENTAL IMPACT REPORT -- PALMDALE
(RITTER RANCH SPECIFIC PLAN, CITY OF PALMDALE)

We have reviewed the Draft Ritter Ranch Specific Plan document dated August 5, 1991, and the DEIR dated August 26, 1991.

Our concerns expressed in our response to Ms. Laurie Lile on May 8, 1990, regarding watercourses, flood channels, landscape plans, and irrigation methods have been addressed in the draft documents.

In regards to the proposed open space, we offer the following comments:

1. Open space should be dedicated to a public agency to ensure perpetuity. Open space designation does not prevent future changes and development. a
2. Land dedication should equal or exceed the number of acres being permanently removed from the surrounding biota. The Joshua/Juniper woodland, and the riparian zones should be retained in a natural state. b

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF

AGOURA HILLS
ARTESIA
AZUSA
BALOWIN PARK
BELL
BELLFLOWER
BELL GARDENS

BRADBURY
CARSON
CERRITOS
CLAREMONT
COMMERCE
CUDAHY
DIAMOND BAR
DUARTE
GLENDOORA
HAWAIIAN GARDENS
HIDDEN HILLS
HUNTINGTON PARK
INOUSTRY
IRWINDALE

LA CANADA FLINTRIDGE
LAKEWOOD
LA MIRADA
LANCASTER
LA PUENTE
LAWDALE
LOMITA

MAYWOOD
NORWALK
PALMDALE
PALOS VERDES ESTATES
PARAMOUNT
PICO RIVERA
RANCHO PALOS VERDES

ROLLING HILLS
ROLLING HILLS ESTATES
ROSEMEAD
SAN DIMAS
SANTA CLARITA
SIGNAL HILL
SOUTH EL MONTE

SOUTH GATE
TEMPLE CITY
WALNUT
WEST HOLLAND
WEST LAKE
WHITTIER

Ms. Tara Hullinger
September 19, 1991
Page 2

3. Open space planning requires more than a hands-off approach. The potential for a wildfire disaster is very real. Open space planning should include specific vegetation management plans, as well as active fire prevention. | c
4. All members of the oak genus are covered by the Oak Tree Ordinance. This includes scrub oak which are likely to be found in isolated pockets of the proposed development. The Environmental Impact Report should address tree ordinances as they apply to this project. | d

Additional questions should be directed to Deputy Forester Michael Wilkinson at (818) 890-5719.

Very truly yours,

P. MICHAEL FREEMAN



BY
JOSEPH FERRARA, CHIEF, FORESTRY DIVISION
PREVENTION, PREPAREDNESS & CONSERVATION BUREAU

JF:lc

Response No. 5

County of Los Angeles Fire Department

Mr. Michael Freeman

- 5a. This comment will be considered by the City during project deliberations. Development Standards of the Specific Plan permit a number of uses within the open space areas (see page 53 of the Draft EIR), however no such uses have been addressed within this EIR. As specific proposals are submitted for the open space areas of the Ritter Ranch Specific Plan area, City of Palmdale staff will conduct environmental review of these proposed uses.
- 5b. The Ritter Ranch Specific Plan area encompasses approximately 10,625 acres of land. Development is anticipated to result in the direct loss of approximately 3,024 acres of habitat, which is considered a significant impact. As indicated in the Draft EIR, the Specific Plan design has substantially reduced biological resource impacts by providing approximately 7,601 acres as "open space".

As indicated in the Draft EIR, development of commercial uses on the site will result in the loss of Joshua Tree Woodland habitat. However, this impact can be reduced through adherence to the City of Palmdale's provisions for the protection of such habitat. A mitigation measure has been included in the Draft EIR which involves fencing of the Joshua Tree Woodland area, and the dedication of an open space easement to the City (refer to the discussion on page 56 of the Draft EIR regarding Juniper Park, and to Mitigation Measure #49). The onsite riparian areas will be mitigated in accordance with U.S. Army Corps of Engineers and California Department of Fish and Game requirements.

- 5c. Comment has been acknowledged. The Draft EIR indicates that fuelbreak areas will be included in the development of the site in order to minimize the potential for fires. However, these fuelbreak areas will not be considered as "natural" open space as significant modification of native vegetation is anticipated to occur during construction. Additionally, revegetation with low combustible plant materials will occur on slopes at the edge of development as a means of reducing the potential for fires. This is allowed for in Mitigation Measure #112.
- 5d. No significant biological impacts are anticipated to occur to any oak woodland or oak chaparral areas as a result of the Ritter Ranch Specific Plan project. The PSBS Biological Resources Review indicates that Turbinella Oak Chaparral is found on north-facing slopes above 4,000 feet, and above 4,800 feet on south-facing slopes in areas that are designated as open space for the project. At the time that Development Applications are received by the City of Palmdale for future projects within the Specific Plan area, site-specific biological reports will be required to determine potential biological impacts to the site (refer to Mitigation Measure #48 regarding future Development Applications). As the site is proposed for annexation into the City, City resource protection ordinances would apply.

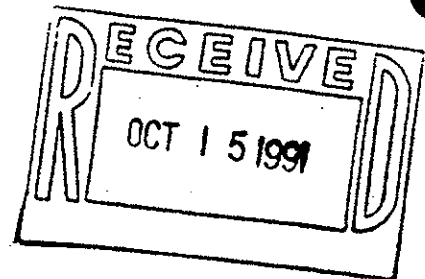


Veyer, Mohaddes Associates, Inc.

Traffic Engineer

October 7, 1991

Laurie Lile
City of Palmdale
38306 N. 9th Street East
Palmdale, CA 93550



RE: Ritter Ranch EIR - Traffic and Circulation

J91-014

Dear Ms. Lile:

This letter is submitted at the request of Ritter Park Associates, the developer of the Ritter Ranch property. We have reviewed the Draft Environmental Impact Report of The Ritter Ranch Specific Plan dated August 1991, prepared by RBF. While we believe that this report adequately reflects assumptions, methodology and analysis presented in the Palmdale Southwest Planning area Circulation and Transportation needs study (DKS Associates, July 1990), Traffic Impact Study of the Ritter Ranch Specific Plan (DKS Associates, June 1990) and the City of Palmdale TRANPLAN Model, we have the following comments on the recommendations and implementation phasing of the mitigation measures:

- a. Both the Palmdale Southwest Planning area study and the Ritter Ranch Traffic Impact Study recommended that for year 2010, Elizabeth Lake Road between Godde Hill Road and Santa Fe Hills Drive, Ritter Ranch Road between Elizabeth Lake Road and City Ranch Road, and Ranch Center Drive be two lane divided roadways while the EIR suggests that 4 lane divided roadways will be more appropriate. Since the traffic studies clearly demonstrate the need for two lanes, a technical justification should be included in the EIR for the additional lanes.
- b. In the Phasing of Street Improvements section for Elizabeth Lake Road, the EIR suggests that: "Dedication and improvements of Elizabeth Lake Road from Godde Hill Road to 20th Street west to be completed before Ritter Ranch takes occupancy of any units in their Phase I". There is not any documented analysis describing why this roadway section should be constructed while Phase I of Ritter Ranch is constructed, nor any discussion of Ritter Ranch "fair share" contribution to this construction when it is warranted.
- c. Regarding Tierra Subida, the EIR suggests that "Ritter Ranch shall be responsible for the right-of-way and improvements on Tierra Subida from City Ranch Road to Rayburn Road". There is not any analysis included that concludes Ritter Ranch significantly impacting this section of the roadway. The southwest study reveals that Ritter Ranch is only contributing 14% of the total traffic along this section of the roadway (Figure 3-8).
- d. As part of the mitigation measures (#75) it is stated that "The applicant shall be required to provide offsite improvements to Rayburn Road, Tierra Subida, Avenue S, City Ranch Road, Bouquet Canyon Road, and Elizabeth Lake Road including the roadway west of Godde Hill Road as determined appropriate by the City Traffic Engineer (construction shall be completed prior to occupancy). Offsite improvements shall include provision of road configurations shown in Exhibit 18, year 2010 circulation system, including the following:
 - Widen Elizabeth Lake Road to six through lanes between 10th Street West and SR-14, including provision of three through lanes for Elizabeth Lake Road at both intersection approaches at 20th West and 25th Street West.



Laurie Lile
October 7, 1991
Page 2

- Widen Elizabeth Lake Road to four lanes from Bridge Road to west of Godde Hill Road."

There is not any documented analysis included in the EIR suggesting either the percent traffic contribution of Ritter Ranch on subject intersections nor any implementation phasing analysis indicating when such improvements are necessary. The southwest report (Figure 3-6 and 3-8) illustrates that there is not any impact of Ritter Ranch on Elizabeth Lake Road between 10th Street West and SR-14. In fact, Figure 3-5, 6 & 7 indicate reduction in total trips (3,000 vehicle per day) for year 2010 comparing scenarios "without the Ritter Ranch Project", "without the City Ranch Project" and "without Ritter Ranch and City Ranch Projects". Again, along Elizabeth Lake Road between Santa Fe Hills Drive and Godde Hill Road recent, a City of Palmdale Model run indicates that for the year 2010 (when Ritter Ranch is planned to be fully developed) there will be 10,000 vehicles per day. According to the City's standard, this section of the roadway requires only two lanes.

In general, construction of the Ritter Ranch on site roadways improves the circulation system of the surrounding network, since the project provides significant relief in terms of capacity. Construction of Ritter Ranch Road, providing Avenue S connection to Elizabeth Lake Road at Godde Hill Road is considered a major improvement in the region as this roadway shifts some of the demand off of Elizabeth Lake Road near the Antelope Valley Freeway. Moreover, construction of Ranch Center Drive provides an important north-south connection between Elizabeth Lake Road and City Ranch Road.

Without the Ritter Ranch Project which may result in no construction of certain roadways such as Ritter Ranch Road, Ranch Center Drive and City Ranch Road (within the specific plan area), parts of the area circulation network might be operating in a deteriorating level of service and below those with the Ritter Ranch project.

Although certain off site improvements will be necessary to maintain an acceptable level of service in accordance with the City of Palmdale standards and guidelines, an appropriate phasing plan and a "fair share" developer contribution should be addressed in the EIR.

Please feel free to call as you wish.

Sincerely,

Meyer, Mohaddes Associates

Abbas Mohaddes
Principal

191-014\1110-1.hr

cc: Peter Wenner

Response No. 6

Meyer, Mohaddes Associates, Inc.

Mr. Abbas Mohaddes

- 6a. Elizabeth Lake Road: Although the Ritter Ranch Traffic Study recommended a two-lane roadway between Godde Hill Road and Santa Fe entrance road, the Southwest Area Traffic Study indicates that a four-lane roadway will be required for the buildout scenario (refer to Figure 4-2 in the Southwest Area Traffic Study). In addition, to better accommodate future transit services and school bus service, and to increase passing safety, the City Traffic Engineer has recommended a four-lane roadway.

Ritter Ranch Road: Again, Figure 4-2 in the Southwest Area Traffic Study recommends a four-lane roadway for this segment. Refer to the discussion for Elizabeth Lake Road, above.

City Ranch Road: The Draft EIR recommends upgrading the roadway to accommodate four lanes to provide a better measure of safety. This safety consideration includes safer provisions for transit service and school bus service, easier and safer u-turns, and safer passing opportunities. The Palmdale General Plan Update Circulation Element indicates that the roadway should be classified as a minor arterial with an 80-foot right-of-way. This would accommodate two travel lanes in each direction.

Ranch Center Drive: The Palmdale General Plan Update Circulation Element indicates that the roadway should be four lanes. Also, safety considerations are an issue as described above.

- 6b. Comment has been acknowledged. The improvements to Elizabeth Lake Road are expected to be completed as part of Assessment District 90-1. If this is the case, then the timing of the Assessment District will drive the improvements. If the Assessment District is not approved, then the improvements will have to be accomplished through some other mechanism. ~~The future focused traffic studies required by Mitigation Measure #72 can be the vehicle to determine the extent of improvements required as each part of the project is constructed.~~ However, ultimately, the timing and extent of these improvements should be at the discretion of the City's Traffic Engineer as each development application is considered, regardless of the status of AD 90-1.

- 6c. The improvements recommended along Tierra Subida will assist in alleviating congestion elsewhere, especially along Avenue S and Palmdale Boulevard. The off-set movement at City Ranch Road and Rayburn Road is needed to accommodate traffic moving from the project site to destinations in downtown Palmdale. The improvement is one step in the development of a cohesive circulation network. Considerations in determining the scope of this network include the convenience to the motorist (i.e., delay times, trip length, etc.), not only volume to capacity ratios. The Ritter Ranch project is a major contributor to traffic on the southwest area network. The absolute percentage (14%) does not necessarily equate to the total

impact from a project. Most projects do not represent such a large percentage of traffic at such distances.

- 6d. Comment has been acknowledged. Mitigation Measure #75 has been revised to read as follows: "Prior to development application approval, the applicant shall pay appropriate traffic impact fees in accordance with City Ordinance 825, and all other traffic fees applied City-wide that may be in place at the time of issuance of Certificates of Occupancy. These traffic impact fees provide the projects required pro rata contribution towards offsite roadway improvements needed to service the development. Funds generated from the traffic impact fees shall be applied toward offsite improvements to Elizabeth Lake Road, Palmdale Boulevard, Avenue S, and 10th Street West/Tierra Subida Road, as approved by the City Public Works Department." ~~Mitigation Measure #75 does not require the developer to bear the sole cost of these improvements unless the City Traffic Engineer deems that it is the developers sole responsibility.~~

~~The first bullet item under Mitigation Measure #75, regarding the widening of "Elizabeth Lake Road", should be changed to "Palmdale Boulevard" as the road name changes to Palmdale Boulevard at 10th Street West. According to City Traffic Engineer Tom Horne, providing six travel lanes on Palmdale Boulevard, between 10th Street West and SR 14, will generally only require restriping the existing roadway.~~

~~With regards to the second bullet item under Mitigation Measure #75 indicating the widening of Elizabeth Lake Road from Bridge Road to west of Godde Hill Road, it appears from the Southwest Area Traffic Study (refer to Figures 3-3 and 3-5) that the elimination of the Ritter Ranch project from the Traffic Model would slightly reduce traffic volumes west of 10th Street West, and would result in no changes east of 10th Street West on Elizabeth Lake Road/Palmdale Boulevard. When both the Ritter Ranch project and the City Ranch project are eliminated in the City of Palmdale Traffic Model, the Model indicates that volumes on Palmdale Boulevard increase. This may be due to the fact that the Traffic Model does not include attractions proposed for the projects (i.e., schools, commercial uses, parks, etc.); therefore, motorists are forced to seek these services elsewhere in Palmdale.~~

- 6e. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.
- 6f. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations. Figures 3-3 and 3-5 of the Southwest Area Traffic Study indicate that the project will contribute to traffic on surrounding roadways. Widening will be needed to accommodate the cumulative impact of development anticipated throughout the area.
- 6g. An appropriate phasing plan and fair share contribution will be determined, to some degree, by the future focused traffic study since the developer has indicated that project phasing is subject to change. The Ritter Ranch project will affect the

circulation system both City-wide and region-wide, and developer "fair share" will be assessed according to this impact.

Response No. 7
Ms. Ginny Hazell

- 7a. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.

COMMENT NO. 8

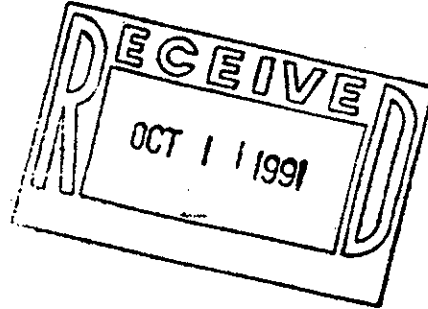


REALTY WORLD® — Neilson

833 West Palmdale Boulevard, Palmdale, CA 93551
Telephone: (805) 272-2715 Fax: (805) 272-1586

October 8, 1991

Ms. Laurie Lile
City of Palmdale
38306 9th Street East
Palmdale, CA 93550



Dear Ms. Lile

As a resident of Palmdale, I am very interested in the types of development projects that are proposed for our community. I have read the Draft EIR on the Ritter Ranch Specific Plan and would like the following comments included in the final EIR.

- The Ritter Ranch Specific Plan provides a once-in-a-lifetime opportunity to thoughtfully and pro-actively plan almost 20% of the city in one fell swoop--without piecemeal development.
- Because of the scope of the Ritter Ranch development, the Specific Plan provides a blueprint to meet the future needs of nearly one-fifth of the city.
- The Specific Plan includes extraordinary new recreational opportunities and opens up more than 7,500 acres of land that was previously closed to the public.
- In a city where there are virtually no trails for hikers, bicyclers and horseback riders, an 85 mile network of trails will link up to other trails in the state.

I believe the overall benefits to the community that will result from the Ritter Ranch development far outweigh any project negatives. As a result, I am in favor of adopting the Ritter Ranch Specific Plan.

Very truly yours,

Inez Neilson
Inez Neilson

Response No. 8
Realty World
Ms. Inez Neilson

- 8a. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.

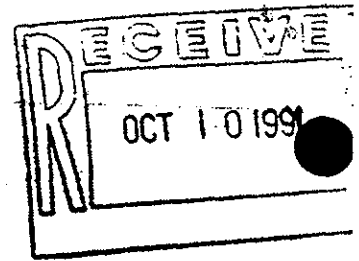
COMMENT NO. 9

William T. Wood

40606 Maestro Lane

Palmdale, CA 93550

(805) 943-8889



October 9, 1991

Ms. Laurie Lile
City of Palmdale
38306 9th Street East
Palmdale, California 93550

Dear Ms. Lile:

Any new housing project like Ritter Ranch, which I support, requires a lot of grading. But I admire the sensitivity to grading that is expressed in the Draft EIR on this project.

Two important facts stand out in my mind. First, there will be a lot less truck traffic and construction noise and dust because all the dirt removed from grading at the site will be used for fill at the site. There will be no need to haul dirt in from the outside or to truck it away. Second, special stair stepped grading process at some locations will reduce the amount of grading needed, save some native vegetation and make the graded areas look especially nice.

This kind of concern for good grading practices will go a long way toward making Ritter Ranch a beautiful addition to the City of Palmdale. I urge the city to approve this project.

Sincerely,


William T. Wood

Response No. 9

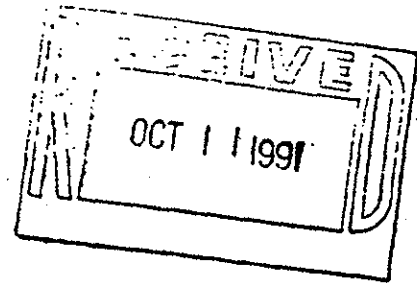
Mr. William T. Wood

- 9a. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.



The Printing Solution

October 9, 1991



Ms. Laurie Lile
City of Palmdale
38306 9th Street East
Palmdale, California 93550

Dear Ms. Lile:

While the Ritter Ranch development will have some impact on the biological resources and open spaces of the proposed site, I think it must be kept in mind that the draft environmental study points out what I think is a major environmental benefit to the public. The document also includes some important measures to mitigate the overall impact.

It should be emphasized first that some 7,500 hundred acres of the 10,625 acre site is being preserved in open space. This area includes seven specialty parks and 85 miles of hiking, bike and horse trails. This substantial allocation will create significant opportunities for more people in and around Palmdale to have easier access to enjoy the biological resources and open spaces to the minimum level possible. Included are restoration of wetlands, the use of setback buffer zones for biologically sensitive areas, measures of protect intrusion into the Joshua Tree Woodland and Maple Canyon Spring, prohibition of motorized bikes or vehicles on the trails and signs to mark trail boundaries to prevent disruption of open space, wildlife and vegetation. I'm confident that these measures will be met under the watchful eye of city, state and federal officials charged with preserving and protecting our natural environment.

It would be interesting and useful for the public if the city studied whether any other development projects in California dedicate so much acreage to open space.

Because Ritter Ranch would include such a generous amount of open space so easily available to the public and because there will be many mitigations to preserve and protect this open space, I heartily support the project. City approval of Ritter Ranch would create a true public benefit.

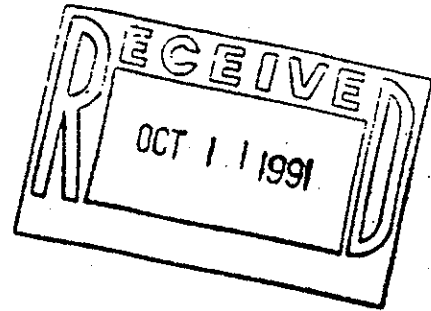
Sincerely,

Bill Meyer
Bill Meyer

Response No. 10
The Printing Solution
Mr. Bill Meyer

- 10a. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.

COMMENT NO. 11



October 9, 1991

Ms. Laurie Lile
City of Palmdale
38306 9th Street East
Palmdale, California 93550

Dear Ms. Lile:

I am a horse owner and a resident of Leona Valley. I've heard that the Draft Environmental Impact Report on the Ritter Ranch Specific Plan shows that the developers plan to include more than 80 miles of trails that will be open for use by riders, hikers and bicyclers.

I am strongly in favor of including equestrian facilities such as trails. At a time when horse trails throughout Southern California are disappearing, the Ritter Ranch plan includes new trails on property that was formerly inaccessible.

I do have a couple of questions about the Specific Plan. Will the equestrian center be open to the general public? Will the trails have a place where you can unload a horse and park a trailer? Thank you for responding to my questions.

Sincerely,

Linda Grimm
John Grimm
40134 92nd Street West
Leona Valley, CA 93551

Response No. 11

Mr. John Grimm

Mrs. Linda Grimm

- 11a. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.
- 11b. The proposed equestrian park for the Ritter Ranch Specific Plan area includes an equestrian center (stables, riding rinks, etc.), an equestrian staging area, a paseo trail connection, and picnic areas. Public access to the equestrian center has not been determined in the Ritter Ranch Specific Plan. Page 4-11 of the Ritter Ranch Specific Plan documents that the facility may be "publicly or privately operated." In either case it may be open to the public. Exhibit 27 of the Specific Plan shows a conceptual layout of the equestrian center. This exhibit shows an area for parking vehicles and horse trailers.

COMMENT NO. 12

HUNT REALTY, INC.

39525 10th Street West
Palmdale, California 93551
(805) 273-4715
FAX (805) 273-8209



Acreage • Lots • Residential • Commercial • Property Management

October 9, 1991

Ms. Laurie Lile
City of Palmdale
38306 9th Street East
Palmdale, California 93550

Dear Ms. Lile:

I understand that some Palmdale area residents are concerned about potential increases in traffic that may result from the Ritter Ranch project. My reading of the Specific Plan shows that the regional roads planned for the West Palmdale area actually will result in an overall reduction of traffic on Elizabeth Lake Road.

Moreover, the regional traffic circulation plan contained in the Specific Plan will not only benefit future residents of Ritter Ranch, it will also facilitate future traffic flow in the entire southwestern portion of the city.

In concept, I am supportive of the circulation plan. However, there is one question I'd like addressed. Will the project's developers be required to participate in building the infrastructure necessary to complete the traffic circulation plan?

Yours truly,

a

Response No. 12

Hunt Realty, Inc.

Ms. Pat Hunt

- 12a. The project's developers (Ritter Park Associates) will be required to participate in building the infrastructure necessary to complete the traffic circulation plan for Ritter Ranch, as indicated in Mitigation Measure Nos. 72-77 of the Draft EIR.

COMMENT NO. 13

LAW OFFICES

CHRISTENSEN, WHITE, MILLER, FINK & JACOBS

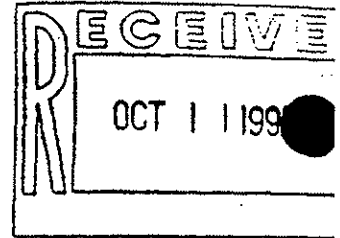
221 AVENUE OF THE STARS

EIGHTEENTH FLOOR

LOS ANGELES, CALIFORNIA 90067

(213) 553-3000

FAX (213) 556-2920



DIRECT DIAL NUMBER

(213) 282-6254

October 10, 1991

City of Palmdale
3806 Ninth Street East
Palmdale, California 93550

Attention: Ms. Laurie Lile

Re: Draft EIR: Ritter Ranch Specific Plan
SCH No. 90010124 (August, 1991)

Dear Ms. Lile:

This letter is submitted on behalf of Ritter Park Associates, the developer of the Ritter Ranch property, to comment on the Draft Environmental Impact Report ("Draft EIR") for the Ritter Ranch Specific Plan and Associated Annexation Areas. We wish to provide comments concerning areas of the Draft EIR which we believe to be in error, require clarification, or require further elaboration. The first part of this letter will comment on the text of the Draft EIR. The second part of the letter will comment upon the mitigation measures which we believe to require clarification or to be excessive, beyond the scope of the environmental review process, and/or infeasible.

I. Comments to Text

On Pages 48-49, the discussion of future environmental review for the project requires clarification. It should be clarified that, with respect to the Ritter Ranch property, the project described in the EIR includes the development of the project according to the Specific Plan and that the EIR will be used for purposes of the approvals listed on Pages 63-64. With respect to future approvals such as conditional use permits and subdivision maps, environmental clearance will be required to determine whether the EIR adequately addresses the proposal and whether the proposal is in conformity with the project described

in the EIR. Only if one of the circumstances described in Public Resources Code Section 21166 such as a change in the project or new significant information occurs will the future approval be subject to additional environmental documentation.

The use of the EIR with respect to the Associated Annexation Areas also requires clarification. It is unclear which of the mitigation measures in the Draft EIR are applicable to the Associated Annexation Areas. The EIR should discuss how the applicable mitigation measures will be applied to the specific projects within the Associated Annexation Areas.

Page 51, Table 2, should reference the provision for density transfers allowed in the Specific Plan.

On Page 53, Paragraph 3, Neighborhood Parks are approximately 5 to 12 acres, not 5 to 15 acres as noted. Community Parks are approximately 15 to 35 acres, rather than 20 acres plus as noted. Specialty Parks are approximately 10 to 140 acres.

On Page 54, the description of Specialty Parks should state that the proposed Specialty Parks include the listed features, rather than each proposed Specialty Park includes the listed features.

On Page 56, Paragraph 5, the description of the golf course as "semi-public" should be changed to "semi-private or public." The proposed course will be open to the public and may have some limited reserved hours.

On Page 58, Table 3, (and on Pages 105, 211 and 293) it should be clarified that the square footage and proposed uses for the commercial areas within the Specific Plan area are estimated at this time. Within the total 73 gross acres of commercial area, commercial uses will be permitted through a conditional use permit review process. The gross leasable area has been estimated, and the uses described on Pages 57 and in Table 3 are land uses which may be included but are not proposed as limitations. The traffic impacts and other environmental impacts of the commercial area have been assessed throughout the EIR based on gross acreage rather than gross leasable area. The EIR has taken into consideration up to 73 gross acres of commercial area.

On Page 59 and throughout the EIR (including Pages 85, 113, 126, 190 and 293), reference is made to the Amargosa Creek Improvement Project and accompanying environmental documentation. It should be clarified that the Amargosa Creek Improvement Project is one proposed solution to the regional on-site and off-site infrastructure improvements which could service Ritter Ranch. The

Laurie Lile
October 10, 1991
Page 3

references in the EIR should not be construed to require that the project described in the Amargosa Creek Improvement Project EIR is a necessary component of the Ritter Ranch Specific Plan. With respect to drainage, utilities and services, and circulation, the Ritter Ranch Specific Plan provides flexibility for all improvements to be handled within the project area. The regional solutions discussed in the Amargosa Creek Improvement Project EIR are potential solutions but are not necessary for the fulfillment of the Ritter Ranch Specific Plan. h

On Page 75, Paragraph 4, the statement that 30% of the total Ritter Ranch area will be graded for roadways and development lots is in error. In fact, approximately 17% of the Ritter Ranch property will be graded for development lots and associated roadways. Approximately 28% of the property will be graded for development lots, roadways and parks. i

On Page 118, Paragraph 3, the statement that Exhibit 11 depicts the Flood Insurance Rate Maps (FIRM) Zone A is in error. Exhibit 11 depicts the Los Angeles County 50-year Capital Flood Area. j

On Page 130, and throughout the document, the reader should be directed to the location and public availability of studies referenced in the document. The prior biological surveys referenced on Page 130 are publicly available in the Planning Department as part of the environmental record for this project. k

On Page 153, the description of the impacts of the project on biological resources should discuss the beneficial impact of the project's preservation of 7,601 acres as natural open space where biological resources and wildlife will be protected and where public passive enjoyment of these resources in a protected environment will be enhanced. l

On Page 167, Paragraph 2, the reference to 7,000 plus homes should be changed to 7,200. m

On Page 162, the text correctly identifies 65 dB CNEL as the generally accepted exterior noise level compatible with new residential development. The Draft General Plan goal of 60 dB CNEL is not an appropriate level to require for compatibility considering that the Plan is still in draft form and that the level is mentioned as a target rather than as an upper limit in all cases. n

On Page 184, Paragraph 3, the reference to the fact that the Ritter Ranch property "will be annexed into the City of Palmdale" should be changed to "is proposed for annexation into the City of Palmdale."

On Page 185, the discussion of existing land use conditions should reference the Los Angeles County General Plan and the Antelope Valley Area-Wide Plan. The current General Plan designation of the project area on both of those plans is Non-Urban 1 permitting a density of up to one unit per two acres. This section should also discuss the Palmdale General Plan Amendment initiated for the Ritter Ranch property which is consistent with the pre-zoning application for "Ritter Ranch Specific Plan - 0.68 DU/AC."

On Page 186, in the discussion of surrounding uses, the tentative map currently being processed in the County for the Leona Valley Estates project (formerly Citi-Thrift) along Elizabeth Lake Road should be discussed. In the fifth paragraph the word "west" in Lines 4 and 9 should be corrected to "east."

On Page 188, the description of the project's open space element should be clarified. 7,601 acres are natural open space and, in addition, there will be 306 acres of improved open space including ten parks and a golf course.

On Page 188, Paragraph 3 should be corrected to state that the Ritter Ranch property is proposed to be annexed into the City of Palmdale.

On Page 206, Table 17 should include the source of the information referenced in this table.

On Page 210, Paragraph 3 should be updated to state that the draft CMP has been released by the LACTC.

On Page 268, the discussion of school conditions and school impacts contains errors which overstate the need for school facilities. On Page 268, the appropriate student generation factor for high school students is .2 high school students per dwelling unit rather than .3 used in the report. The factors for the capacity of elementary schools and middle schools are understated. In fact, year-round schools can operate at 25 to 30 percent above traditional calendar capacity, rather than the 20% stated in the Draft EIR. In addition, the statement that senior dwelling units in the project could not preclude children from occupying the units is in error. The calculation of 300 student from the senior dwelling units is improper.

Laurie Lile
October 10, 1991
Page 5

The actual impacts of the project on school facilities (taking these corrections into account) would require 3.6 elementary schools and one middle school. The project's proposal for five elementary school sites and one middle school site will exceed capacity needs for elementary schools and meet 100% of middle school needs for the project. The proposal to set aside a high school site exceeds the need generated by the project by 50 percent.

W

On Page 270, corrections should also be made with respect to the school impacts of the Associated Annexation Areas. These areas could generate 139 elementary school students (representing 21% of the enrollment of one Ritter Ranch school) and 61 middle school students.

X

On Page 273, Paragraph 2, the combined capacity of the two described pumping stations is 13,500 gpm with no current plans for expansion. The 2.5 MG water storage reservoir has been constructed and will be operational as soon as accepted by District No. 34.

Y

On Page 273, Paragraph 3, it is not currently anticipated that untreated water from the existing ground water wells located in the Anaverde and Leona Valleys will be used for construction watering and landscape irrigation. Current plans are that only AVEK water pumped directly from the California Aqueduct is proposed to be used for these uses.

Z

On Page 274, Paragraph 1, the project water demand estimates have been updated. It is now estimated that Ritter Ranch will require a potable water supply of 10,700 gpm and an untreated supply of 3,000 gpm to meet domestic and irrigation demands.

aa

On Page 274, Paragraph 4, the backup supply required for Ritter Ranch from wells has been revised to approximately 3,850 gpm. The EIR should state that the well for this backup supply is currently proposed to be located at the stated location.

bb

On Pages 283-284, the discussion of parks and recreation impacts should include a description of the City's existing Parkland Fee Ordinance.

cc

On Page 294, the discussion of cumulative impacts should be clarified to describe which cumulative projects were taken into consideration for the cumulative analysis in this section and in the traffic section. The reference to Table 25 on Page 300 should

dd

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October 10, 1991
Page 6

be corrected to Table 26. The use of Table 27 should be clarified. Any relevant conclusions contained in the documents referenced on Page 300 which are available at the Planning Department should be disclosed in the Final EIR.

dd

On Page 300, emission factors used to determine the total emissions for cumulative projects should be provided, preferably in table form.

ee

On Pages 305-306, Table 28, the source of this information should be cited and it should be stated that this is a "worst case analysis" based on theoretical total General Plan buildout. Also the footnotes should be appropriately located on the table.

ff

On Page 307, Table 29, there appears to be an error in the generation factor used to determine police services required for retail uses.

gg

On Page 308, the discussion of cumulative impacts on maintenance is self-serving and not supported by the evidence. There is no evidence indicating that the increased maintenance costs will not be fully offset by increases in general fund revenue generated by the proposed development.

hh

On Page 312, the discussion of the "No project/existing zoning" alternative should mention that development of the project under the Los Angeles County General Plan at a density of approximately 5,500 dwelling units without any commercial use would prevent the project from meeting many of its objectives, including the objective of developing a master-planned community which includes a sufficient level of commercial development and facilities to meet the needs of the residents of the community. This alternative would eliminate many beneficial features of the project including the extensive open space element, the development of the entire project to meet a variety of housing needs, and provision of neighborhood serving retail and commercial uses on-site to reduce vehicle miles travelled by project residents.

ii

On Page 315, the discussion of the "Reduced scale alternative" should be clarified. As the section describes, reduction of the density of the project does not necessarily result in an environmentally superior project due to the substantial infrastructure improvements required. As discussed, the project as presently proposed has been designed to minimize environmental impacts and maximize open space. A reduced scale alternative would prevent the project from meeting its objectives, including the objectives of developing a residential community which includes a sufficient level of commercial development, schools, parks, and

jj

Laurie Lile
October 10, 1991
Page 7

community facilities to support the residents of the community; providing housing opportunities which meet the needs of a variety of lifestyles with respect to unit type, size and cost; ensuring that public facilities can be developed at the time of development; and meeting or exceeding parkland requirements.

II. Comments to Mitigation Measures

No. 8 (Page 86): The City of Palmdale should not delegate its authority to approve an erosion control plan to the Antelope Valley Resource Conservation District. This District has no independent approval authority pursuant to State law, does not have the resources to act as an approving authority, and was formed only as a planning agency. The requirement for District approval should be eliminated.

No. 11 (Page 89): For consistency with the Specific Plan, the drainage design measure should be subject to the applicable Standards and Master Plan "except as otherwise approved by the City Engineer."

No. 14 (Page 89): The maximum slope of this type of cut slope should be subject to the approval of the City Engineer, not the City Geologist.

No. 17 (Page 89): For consistency with the Specific Plan, this measure should reference that grading must comply with the Los Angeles County Uniform Building Code, Chapter 70.

No. 22 (Page 114): This measure should be clarified to indicate that the application of water and chemical dust retardants that solidify loose soils is required rather than "paving." The use of paving is not appropriate for remote grading areas, and the use of water and chemicals is an effective dust control measure. The cost of interim paving materials would be exorbitant and unjustified.

No. 25 (Page 115): This measure requiring scheduling of construction operations to avoid high ozone days should state "to the extent feasible." The periods of lowest ozone generally occur at night or in early mornings which conflicts with the working hour requirement of the Palmdale Municipal Code. It is not economically feasible to continually stop and start a large fleet of construction equipment. Flexibility must be provided in this measure.

No. 27 (Page 115): The language of the second sentence of this measure should be clarified to read "As project buildout will occur over a 20-year period, subsequent phases/approvals will be

Laurie Lile
October 10, 1991
Page 8

held to Tier II and Tier III measures which are implemented as mandatory AQMD Rules and Regulations applicable to the project or phase." q

No. 27c (Page 115): This measure regarding the project's contribution to a Park and Ride facility is excessive and reaches beyond the level of mitigation supported by the evidence in the environmental documentation. The "criterion" of one Park and Ride space for every ten dwelling units is not supported in the record, nor is the requirement that the facility be completed prior to the occupancy of any units. The per unit fee of \$250.00 per unit for "unspecified transportation demand management programs which would be implemented by the City" is also excessive and exceeds the evidence of impact contained in the record. At a minimum the measure should be clarified to specify the upper limit of the exaction and the appropriate time for completion. ri

No. 30 (Page 116): The requirements of Measure Nos. 27, 29 and 30 should be consolidated and clarified into a single requirement that the project and all phases of the project shall comply with applicable Rules and Regulations of the SCAQMD which impose requirements on the project at the time of construction. The language of Measure No. 30 is vague and could be used to justify excessive mitigation at a future time. S

No. 31 (Page 126): This measure regarding the design of drainage facilities should be clarified to state that, in some cases as approved by the City Engineer, interim facilities may be provided, as is stated in the Specific Plan. The measure should also be clarified to state that each facility must be completed prior to the issuance of occupancy permits for the portion of the project which is served by the facility in question. ti

No. 37 (Page 157): This measure addresses setbacks as the only type of mitigation possible to reduce impacts to nesting sites and other biological resources. The measure should state that setbacks, or other alternatives recommended in a site specific biological report may be implemented to mitigate impacts. The evidence in the environmental documentation does not support the conclusion that distance is the only method to mitigate impacts to biological resources. u

No. 39 (Page 157): This measure should be reworded to state that "Fuelbreaks shall be provided in accordance with fire code standards and should be cleared in a manner to avoid exacerbation of erosion." The requirement that all fuelbreaks be manually cleared is excessive. Modern equipment can effectively clear fuelbreaks without unnecessarily disturbing soils and native vegetation. The statement in this mitigation measure that the v

fuelbreak system shall not be computed for credit purposes as open space is not reasonably related to the measure itself which is aimed at mitigating impacts to native vegetation. There is no reason why fuelbreak areas that are designed to preserve native vegetation and are precluded from development should not qualify as open space.

No. 48 (Page 159): This measure is overly vague and leaves unbridled discretion in the City Planning Director to determine "sensitive species." The measure should include a definition of "sensitive species" as one designated by Federal, State or Local law.

No. 49 (Page 159): The requirement for a 50 to 150-foot setback from the Joshua Trees in the Joshua Tree Woodland should be deleted as excessive. There is no justification for the required setback. There is no evidence that Joshua Trees (which are not a protected species) require these extensive setbacks.

No. 51 (Page 173): This measure limits maintenance activities to the same working hours as construction activities. Large fleets of heavy construction equipment must be fueled, maintained and repaired at the end of each operational shift in order to maintain schedules and cost efficiency. Limiting "second shift" maintenance is counterproductive in that it requires longer to finish the project, thereby exposing the public to longer periods of grading activity. This measure should be reworded to allow second shift maintenance operation so long as maintenance and repair areas are at least 1,000 feet from the nearest occupied residence and are screened from view from same.

No. 52 (Page 173): This mitigation measure requiring acoustical barriers is excessive and may be infeasible. The CNEL exposure level should be set at 65 dB which is the accepted exposure level for residential use. The measure should refer to the measures discussed on Page 170 of the text which include other methods to buffer residential uses from noise, including placement of parking facilities, placement of commercial uses, acoustically rated windows, etc. The discussion should take into account the visual impacts of the proposed acoustical barriers, which visual impacts may not warrant the use of barriers along all internal and adjacent arterials.

No. 54 (Page 173): This measure is excessive and not supported by the evidence. The Draft EIR does not address the proposal for a "regional noise mitigation program." The environmental documentation does not quantify the project's

"pro-rata share" of such speculative future mitigation. There is no evidence that any regional measures are feasible or could be effective. There is no justification for imposing this "blank check" measure on the project.

aa

No. 63 (Page 182): For consistency with the Specific Plan, this measure should be clarified to state that disturbed areas within the open space area shall be replanted with vegetation compatible with the existing native vegetation.

bb

No. 66 (Page 191): The requirement for monthly aerial photographs is excessive. The statement that future discretionary approvals may include additional conditions should be clarified to state that future discretionary approvals may include additional conditions only if further environmental documentation is required due to conditions enumerated in Public Resources Code Section 21166.

cc

No. 68 (Page 196): This measure, and several others throughout the report, need clarification that the measure applies "prior to issuance of grading permits for" the areas in question. In other words, each area listed must be tested prior to the issuance of a grading permit for that particular area.

dc

No. 71 (Page 197): The requirement that all homeowners within the project receive a notification regarding the power transmission lines is excessive and not supported by the evidence. The Draft EIR clearly states that there is no current scientific evidence that links ELF fields emanating from power transmission lines to deleterious health effects. For consistency with the Specific Plan, this measure should require notification of homeowners within 100 feet of the easements.

ee

No. 72 (Page 228): The requirement that the developer improve or fund a pro-rata share of improvements and pay traffic impact fees, and all other fees in place at the time of issuance of Certificates of Occupancy is excessive. Reference to the phasing outlined in the Draft EIR text should be deleted, as further focused traffic studies will determine actual phasing needs.

ff

No. 73 (Page 229): The requirement that all improvements be provided prior to the issuance of occupancy permits should be clarified to state that improvements must be completed according to the actual phasing needs of the project.

gg

No. 75 (Page 229): The off-site road improvements specified in this measure are excessive and are based on traffic studies which do not give credit to the applicant for on-site roadway improvements which would not otherwise be available to the area.

hh

These improvements are also based on a worst case analysis of related projects and the year 2010 buildout which will result in growth inducing oversizing of improvements. This measure should include flexibility to revise off-site improvements based on site-specific future traffic studies.

hh

No. 76 (Page 229): This measure is excessive. Although the applicant is willing to comply with the Congestion Management Plan, the applicant cannot be required to implement unknown future improvements to bring traffic conditions into compliance with unknown future City General Plan requirements. Reference to the City's General Plan should be deleted.

iii

No. 77 (Page 229): The requirements specified for Elizabeth Lake and City Ranch Road are excessive and not related to the specific impacts of the project. This plan is also inconsistent with the circulation element of the Specific Plan. The necessity for divided four-lane roadway sections is not supported by the evidence, and such sections cannot physically be accommodated in many locations.

iii

No. 79 (Page 261): This measure should be clarified to state that the Archeological Monitoring Program may be phased and completed within each area prior to issuance of grading permits for that area. The measures included in the Monitoring Program are identified in the 1991 LSA Phase II archeology report. The measures identified in the 1990 report listed in this measure have already been addressed in a Phase II report.

kk

No. 80 (Page 261): This measure is taken from the Phase I report. Many of the locations identified in this measure have already been identified in the Phase II report (as summarized in Table 25) as requiring no further mitigation.

iii

No. 84 (Page 262): This measure should be clarified to state that the Paleontological Monitoring Program may be phased and completed in each case prior to issuance of the grading permit for that area.

mi

No. 93 (Page 266): This measure regarding approval of lighting by the Sheriff's Department should reference Measure No. 60 which states "Lighting should not be of greater intensity than otherwise necessary for public safety."

nr

No. 95 (Page 266): The measure should be reworded to state that "The applicant shall consult with the Los Angeles County Sheriff's Department regarding landscape features standards to ensure that landscape features do not conceal potential criminal

oc

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activity around buildings and in parking areas." Final approval for the landscape plan should be left in the hands of the Director of Planning and City Engineer pursuant to Measure No. 58. o

No. 96 (Page 266): This measure is excessive and not supported by the Draft EIR's description of the project's impacts on police services. The Draft EIR admits that there is a deficiency in current regional service. The project cannot be made to compensate for existing deficiencies by providing regional facilities. The additional property tax revenue generated by the project may be allocated to the funding of a new regional facility, if the County decisionmakers so choose. The level of applicant funding of police services should not be left to the discretion of the Sheriff's Department. The Draft EIR contains no standard to evaluate the project's pro-rata share of additional funding requirements. It should be noted that the recently circulated Draft EIR for the City Ranch Specific Plan which proposes 5,200 dwelling units does not require any funding of additional sheriff services by the developer. p

No. 97 (Page 267): This measure is excessive, beyond the scope of environmental review, and not supported by the evidence. The Draft EIR acknowledges inadequate library facilities under existing conditions. There is no evidentiary basis for the "library standards" which result in the finding of the need for a 16,000 square foot library. The Draft EIR discussion is inadequate in that it fails to discuss other alternatives to a branch library on the Ritter Ranch property such as shared facilities with other communities, or shared facilities with other resources in the project such as schools and parks. It should be noted that, again, the Draft EIR for City Ranch contains no provision requiring mitigation of library impacts and does not even address the issue of library services. q

Nos. 99 and 99a (Pages 270-271): The requirement to dedicate and improve all new and interim school facilities is excessive and not supported by the evidence. The calculations in the impact section are based on overstated generation factors and understated school capacity figures. This measure should be clarified to state that appropriate levels of funding, consistent with State law and budgets, should be provided to compensate for a pro-rata share of school facilities. The mitigation measure should not create a windfall for the School Districts. All available funding mechanisms must be utilized, not just developer financing. r

No. 102 (Page 272): For consistency with the Specific Plan, this measure should pertain to all permanent power lines. s

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No. 109 (Page 281): This measure should permit the payment of sewer assessment fees or the provision of on-site waste water conveyance facilities. Subject to the acceptance by the Public Works Department and Sanitation District, the developer should receive credit for building equivalent on- and off-site facilities.

ttt

No. 113 (Page 283): This measure is vague and excessive in that it leaves the level of fire service facilities within the full discretion of the County Fire Department. Specified levels of service necessary to mitigate the demand created by the development project should be specified. The EIR discussion should also mention the proposed Fire District fee for new development. The mitigation measure should make it clear that the applicant will receive credit against any fire service fees for the provision of new fire facilities and/or equipment.

uuu

No. 115 (Page 284): The EIR discussion does not mention the City Parkland Fee Ordinance. This mitigation measure should give the applicant the option of paying the park fees or dedicating and constructing improvements in lieu of and with credit against such fees.

vvv

No. 116 (Page 284): This measure should be clarified to state that appropriate signage must be in place within each area prior to the issuance of grading permits for that particular area.

www

No. 117 (Page 284): This provision requiring lighting along pedestrian trails should reference Measure No. 60 for consistency. Measure No. 60 limits lighting to an intensity necessary for public safety purposes.

xxx

No. 120 (Page 286): The requirement for trash compactors should allow multi-family buildings to provide commercial compactors in a central trash room, rather than in each unit.

yyy

Nos. 123, 124 and 125 (Page 288): The inclusion of the Maintenance Section in this EIR is beyond the scope of environmental review. The maintenance of City facilities is and will be adequately provided for by the revenues received by the City of Palmdale from this project. None of the mitigation measures are justified or related to the impacts of the project.

zzz

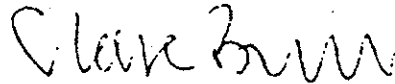
No. 126 (Page 289): The inclusion of a Radio Communication Section in this EIR is beyond the scope of environmental review. The radio repeater location is required to meet existing deficiencies in the City's radio communication system. These existing deficiencies are acknowledged in the text of the EIR. The mitigation measure is not related to the impacts of the project and is excessive and unjustified.

aaa

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Thank you for this opportunity to provide our comments
and corrections to the Draft EIR.

Sincerely,

A handwritten signature in cursive script, appearing to read "Clare Bronowski", with a long horizontal stroke extending to the right.

Clare Bronowski
Christensen, White, Miller,
Fink & Jacobs

CBB/rw

Response No. 13

Law Offices of Christensen, White, Miller, Fink & Jacobs
Ms. Clare Bronowski

- 13a. Comment has been acknowledged. Page 48 of the Draft EIR indicates that future development within the Ritter Ranch Specific Plan area (including the annexation areas) will require further environmental review. This "environmental review" is standard procedure to determine future development plan (as in a Tentative Tract Map or Conditional Use Permit) consistency with the approved Ritter Ranch Specific Plan and its Final EIR. As noted, additional documentation will only be required if any of the provisions of CEQA Guidelines Sections 15162, 15163 and 15164 apply.
- 13b. The mitigation measures ~~for which apply to both the Ritter Ranch Specific Plan and the Annexation Areas~~ will be distinguished by an asterisk (*). ~~to indicate the mitigation measures which apply to the Annexation Areas~~
- 13c. Table 2, PLANNING AREAS STATISTICAL SUMMARY, will include a footnote to indicate the provision of allowable density transfers between Planning Areas in the Specific Plan area.
- 13d. Comment has been acknowledged. Text on page 53 of the Draft EIR will be modified to read, "Neighborhood Parks (approximately 5-12 acres), Community Parks (approximately 15-35 acres), and Specialty Parks (approximately 10-140 acres)."
- 13e. Text will be revised accordingly.
- 13f. Text will be revised accordingly.
- 13g. Comment has been acknowledged. Square footages indicated on page 58 of the Draft EIR text are based on information obtained from the Specific Plan. This comment will be taken into consideration by the City Council during project deliberations.
- 13h. Comment has been acknowledged, and will be taken into consideration by the City Council during project deliberations. City staff are not aware of any feasible onsite solutions to traffic and flood hazards along Elizabeth Lake Road, or of obtaining utilities without extension along Elizabeth Lake Road. However, the Amargosa Creek Improvement Project EIR does address potential alternatives, and it is assumed in the Ritter Ranch Draft EIR that the Amargosa Creek Improvement Project is the proposed solution to the regional infrastructure improvements necessary in southwest Palmdale. Also, Ritter Ranch will be a participant in Assessment District 90-1, and all infrastructure plans addressed in the EIR are based on implementation of Assessment District 90-1.
- 13i. The reference on page 75 of the Draft EIR text stating that 30% of the total Ritter Ranch area will be graded was in reference to all graded areas on the Ritter Ranch Specific Plan area. Therefore, 30% is correct.

- 13j. Exhibit 11, EXISTING DRAINAGE, on page 120 of the Draft EIR will be changed to indicate the "F.I.R.M. 100 Year Flood Zone", instead of the "L.A. County 50 Year Capital Flood Area".
- 13k. As indicated on pages 65, 91, 130, 161, 193, 208 and 264 of the Draft EIR, the studies and reports referenced in the Draft EIR are available in the Appendices of the Draft EIR, or are available at the City of Palmdale Planning Department.
- 13l. Text on page 153 of the Draft EIR indicates that biological resource impacts have been substantially reduced by providing approximately 7,601 acres of open space, including retention of sensitive/unique areas in Specialty Parks and minimization of the disruption of natural stream channels. "Public passive enjoyment" of these areas is not relevant to mitigation of biological resource impacts.
- 13m. Text on page 167 of the Draft EIR will be changed in paragraph 2 from "7,000+ homes", to "7,200 homes".
- 13n. Comment has been acknowledged. However, this comment is considered a General Plan issue as the Noise Element of the City's Draft General Plan specifies a 60 dB CNEL as the "target" noise exposure level. This comment will be taken into consideration by the City during project deliberations. Noise mitigation requirements will be based on applicable noise standards in place at the time of future application review.
- 13o. Text on page 184 of the Draft EIR will be changed to read, "The Ritter Ranch property is located in the unincorporated portion of Los Angeles County and is proposed for annexation into the City of Palmdale".
- 13p. Comment has been acknowledged. However, this information is indicated in Section III, PROJECT DESCRIPTION, of the Draft EIR (pages 44-46).
- 13q. Comment has been acknowledged. Text in paragraph 2 on page 186 of the Draft EIR will include the following: "A Tentative Map is currently being processed in the County of Los Angeles for the proposed Leona Valley Estates project (formerly called Citi-Thrift), which is situated northwest of the Ritter Ranch property along Elizabeth Lake Road." Additionally, the word "west" on page 186 of the Draft EIR, (lines 4 and 9 of paragraph 5), will be changed to "east".
- 13r. The 7,601 acres are not all "natural", as noted in the EIR. The text will be amended to note the improved open space.
- 13s. Text on page 188 of the Draft EIR (paragraph 3) will be corrected to state that the Ritter Ranch property is proposed to be annexed into the City of Palmdale.
- 13t. Table 17, DAILY CAPACITIES FOR PALMDALE MAJOR AND MINOR ARTERIALS (page 206 of the Draft EIR) will indicate the source of the information referenced in the table.

- 13u. Text on page 210 of the Draft EIR (the first sentence of paragraph 3) will be changed to read, "The Draft CMP has recently been released by the LACTC, and indicates that affected roadways include State Route 14 and Highway 138."
- 13v. Comment has been acknowledged and will be considered by the City during project deliberations. The student generation factor used in the Draft EIR was obtained from the Antelope Valley Union School District. It was the best available information at the time the document was prepared. However, a comment letter from the School District revealed that the generation factor for the District had been reduced to 0.2 students per dwelling unit. Therefore, the discussion of school impacts is a worst case. As indicated on the correspondence letter received from the Antelope Valley Union High School District on July 30, 1990 (refer to Appendix J of this EIR), the student generation factor for high school students is 0.3 per dwelling unit. However, generation rates for elementary and middle school students per household were obtained from the Westside School District for the traditional school schedule as well as the year round schedule. Comment has been acknowledged regarding the senior housing student generation rates. However, as indicated in the Draft EIR text on page 268, fair housing laws cannot preclude children from occupying these homes with their senior relatives. The text also indicates that it is expected that the generation rate from senior dwelling units would be substantially lower than the standard generation rate of 0.45 for elementary school students and 0.15 for middle school students. Therefore, the Draft EIR includes accurate student generation rates obtained from the responsible school districts, and that the Draft EIR analysis of school impacts is accurate and up to date.
- 13w. Please refer to Response No. 13v.
- 13x. Please refer to Response No. 13v.
- 13y. Information for the Water Service section (pages 273-277) of the Draft EIR, regarding the two pumping stations, the water storage reservoirs, and the untreated water information, was obtained from a Water Resources Study prepared by Brockmeier Consulting Engineers for the Ritter Ranch Draft Specific Plan. This comment will be taken into consideration by the City during project deliberations.
- 13z. Comment has been acknowledged, and will be considered by the City during project deliberations.
- 13aa. Comment has been acknowledged, and will be considered by the City during project deliberations.
- 13bb. Comment has been acknowledged, and will be considered by the City during project deliberations.
- 13cc. The text will be revised accordingly.
- 13dd. Comment has been acknowledged. Text on page 295 of the Draft EIR, CUMULATIVE IMPACTS, will include the following, "(refer to Table 26,

FORECAST BUILDOUT LAND USE, for a list of cumulative projects taken into consideration for the cumulative impacts analysis as well as the traffic analysis)."

Text will be changed on page 300 in paragraph 1 and 3 to read, "Table 26", instead of "Table 25".

Comment has been acknowledged regarding the use of Table 27, SUMMARY OF CUMULATIVE PROJECTS. However, as indicated on page 295 of the Draft EIR, Table 27, SUMMARY OF CUMULATIVE IMPACTS, indicates proposed projects within a three mile radius that are expected to contribute to cumulative impacts in the project area.

The Draft EIR includes adequate information from the referenced documents.

- 13ee. The emission factors for cumulative projects were obtained from the Giroux & Associates Air Quality Impact Assessment for the Ritter Ranch Specific Plan (refer to Appendix C of this EIR). The factors are based on the URBEMIS #2 air quality model.
- 13ff. Table 28, FORECAST BUILDOUT TRAFFIC VOLUMES AND LEVEL OF SERVICE, will indicate the source of this information. Text will be included on page 304 of the Draft EIR to indicate that Table 28 is a worst-case analysis based on General Plan buildout. Additionally, the footnotes will be appropriately marked on Table 28.
- 13gg. References to retail demand on police services will be omitted.
- 13hh. Comment has been acknowledged, and will be taken into consideration by the City of Palmdale. Information regarding maintenance operation costs was obtained from the City's Public Works Department, indicating the current annual costs of maintenance. Increases in maintenance costs are expected to increase significantly as a result of the cumulative projects in the area, thereby resulting in a significant cumulative fiscal impact to the City if additional revenue sources are not implemented for maintenance purposes.
- 13ii. Comment has been acknowledged. However, a significant amount of open space would still remain with implementation of this alternative, due to the project areas' steep slopes and drainage courses. Refer to Response No. 17d.
- 13jj. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.
- 13kk. Mitigation Measure #8 involves the review and approval of an Erosion and Sedimentation Control Plan by the Antelope Valley Resource Conservation District and the City of Palmdale. The City of Palmdale will act as the prime authority for the review and approval of the Plan, and is in no way delegating its authority to the Antelope Valley Resource Conservation District to review and approve this Plan. To clarify the Erosion and Sedimentation Control Plan, the Antelope Valley

Resource Conservation District will be noted in the Final EIR as a reviewing body only.

- 13ll. Mitigation Measure #11 of the Draft EIR text will be modified to include, "except as otherwise approved by the City Engineer".
- 13mm. Mitigation Measure #14 of the Draft EIR will be modified to indicate "(unless otherwise approved by the City Engineer)".
- 13nn. Mitigation Measure #17 of the Draft EIR text will be modified to include, ", Chapter 70."
- 13oo. Mitigation Measure #22 of the Draft EIR will be modified to read, "In addition to watering prior to and during grading (as discussed in SCAQMD Rule 403), the application of water and chemical dust retardants that solidify loose soils shall be implemented for construction vehicle access, as directed by the City Engineer".
- 13pp. Mitigation Measure #25 of the Draft EIR text will be modified to include ", to the extent feasible."
- 13qq. Mitigation Measure #27 (the second sentence) of the Draft EIR text will be modified to read, "As project buildout will occur over a 20-year period, subsequent phases/approvals will be held to Tier II and Tier III measures which are implemented as mandatory AQMD Rules and Regulations applicable to the project or phase."
- 13rr. Comment has been acknowledged, and will be taken into consideration by the City of Palmdale. However, Mitigation Measure No. 27c is consistent with the Ritter Ranch Draft Specific Plan (refer to page 4-29).
- 13ss. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.
- 13tt. Mitigation Measure #31 of the Draft EIR text will be modified to indicate, "Local facilities will be installed concurrently with or immediately after completion of grading activities, and in some cases, as approved by the City Engineer, interim facilities may be provided." Additionally, Mitigation Measure #31 will be modified to indicate, "Each facility shall be completed prior to issuance of occupancy permits for a development application for the portion of the project which is served by the facility."
- 13uu. Comment has been acknowledged, and the EIR text will be revised accordingly. It should be noted that the setback guidelines are recommendations only, as actual mitigation for subsequent phases will depend on site-specific biological resource studies.
- 13vv. Mitigation measure #39 was proposed in the Biological Resources Review for the Ritter Ranch Specific Plan (prepared by PSBS, July 1990). This comment will be taken into consideration by the City during project deliberations.

- 13ww. Mitigation #48 on page 159 of the Draft EIR text will be changed to indicate, "(as defined by Federal, State, or local laws)".
- 13xx. The requirement for a 50- to 150-foot setback from the Joshua Trees in the Joshua Tree Woodland is based upon its function as a habitat with animals which have a perception of threat based upon proximity of the threat (i.e., noise, light, human activity, cats, dogs). The proposed setback is not based on the sustained growth of an individual specimen Joshua Tree. Additionally, the typical setback for arborescent vegetation generally exceeds 50 feet, and there is a large body of data to justify this or a greater distance.
- 13yy. Mitigation Measure No. 51, involving limited hours for construction and general maintenance activities, is in compliance with the City of Palmdale Municipal Code Section 828.030 involving construction and maintenance activities during the hours of 6:30 a.m. to 8:00 p.m.
- 13zz. Comment has been acknowledged. Mitigation Measure No. 52 will be revised to suggest that setbacks for placement of non-residential buildings adjacent to the arterial roadway may be effective at reducing exterior noise to acceptable levels. The mitigation measure will also be revised to indicate that the acceptable noise level CNEL which will be applied to future projects will be that level which is in place either by ordinance, resolution, or General Plan policy, at the time that future development applications are deemed complete, and will be considered by the City during project deliberations. ~~However, Mitigation Measure #52 is not considered excessive as the Draft General Plan Noise Element specifies a 60 dB CNEL exposure level as the residential and other noise sensitive land use target noise exposure level. Refer to Response No. 13n.~~
- 13aaa. Comment has been acknowledged, and will be considered by the City during project deliberations. However, the project's participation in this program is conditional upon the City implementing a regional noise mitigation program for existing residential areas (the City of Costa Mesa and other jurisdictions have such programs). It should be noted that, as presently anticipated, the Amargosa Creek Improvement Project will include provision of noise attenuation walls (and/or structural upgrades) for impacted existing residential areas along Elizabeth Lake Road. As the applicant is expected to participate in the Amargosa Creek Improvement Project Assessment District 90-1, and will thereby fund a pro-rata share of the facilities, this would satisfy the intent of this mitigation measure.
- 13bbb. The EIR text will be revised accordingly.
- 13ccc. The EIR text will be revised accordingly.
- 13ddd. The EIR text will be revised accordingly.
- 13eee. This comment will be considered by the City during project deliberations. Contrary to the statement, the EIR indicates that the body of data is insufficient, not that there is "no evidence". The EIR also notes the potential for unavoidable adverse impacts, in consideration of several public parks located within or adjacent to the

powerline easements. In consideration of CEQA guidance on conflicting technical data, it is considered appropriate to assume there is a potential risk to project residents and that notification of potential residents is a reasonable precaution.

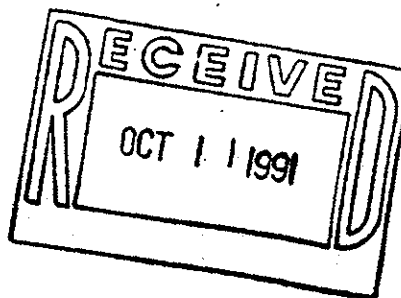
- 13fff. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.
- 13ggg. Comment has been acknowledged, and Mitigation Measure #72 will be revised to reflect this intent in the Final EIR. ~~will be taken into consideration by the City during project deliberations.~~
- 13hhh. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.
- 13iii. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.
- 13jjj. Comment has been acknowledged. ~~Please refer to the discussion under Response No. 6a, and will be taken into consideration by the City during project deliberations.~~
- 13kkk. Mitigation Measure #79 will be clarified to include, "Prior to issuance of grading permits for each area of the Ritter Ranch Specific Plan, a qualified archaeologist shall be retained at the expense of the developer to formulate and carry out an Archaeological Monitoring Program for that particular area. ...".
- 13lll. Any existing studies will be considered by staff in fulfilling the requirements of the EIR mitigation measures. As indicated by several comments submitted to the City on the Phase II archaeology report, additional field work and report modifications will be required prior to acceptance by City staff.
- 13mmm. Mitigation Measure #84 will be clarified to include, "Prior to issuance of grading permits for each area of the Ritter Ranch Specific Plan, a qualified paleontologist shall be retained at the expense of the developer to formulate and carry out a Paleontological Monitoring Program for that particular area. ...".
- 13nnn. Mitigation Measure #93 will be modified to ~~indicate that lighting should not be of greater intensity than otherwise necessary for public safety; reference Mitigation Measure #60.~~
- 13ooo. Mitigation Measure #95 will be reworded as follows: "The Applicant shall consult with the Los Angeles County Sheriff's Department regarding landscape standards to ensure that landscape features do not conceal potential criminal activity around buildings and in parking areas. This measure will be implemented to the satisfaction of the City of Palmdale Planning Director and City Engineer, prior to staff acceptance of the Landscape Plan."
- 13ppp. Comment has been acknowledged. ~~Mitigation Measure #96 will be deleted in the Final EIR and will be taken into consideration by the City during project deliberations.~~

- 13qqq. Mitigation Measure #97 in the Draft EIR will be deleted in the Final EIR. is considered appropriate when considering the scope of the Ritter Ranch Specific Plan project, and the currently inadequate library system in the City of Palmdale. Your comment will be taken into consideration by the City during project deliberations.
- 13rrr. Please refer to Response No. 13v and Response No. 34a. As indicated, the generation factors for elementary, middle, and high school students were obtained from the appropriate school districts, and are considered the correct student generation rates. Your comment will be taken into consideration by the City during project deliberations.
- 13sss. The EIR text will be revised accordingly.
- 13ttt. Mitigation Measure #109 of the Draft EIR text will be modified to indicate, "The project developer will be required to pay sewer assessment fees or provide adequate onsite wastewater conveyance facilities, and conform with City Public Works Department ...". Additionally, Mitigation Measure #109 will include, "Subject to the acceptance by the Public Works Department and Sanitation District, the developer shall receive credit for building equivalent onsite and offsite facilities. In the event that Assessment District 90-1 is not formed, and developer constructs offsite trunk sewer lines within the San Andreas Fault zone, the developer shall use state-of-the-art designs for the trunk sewer line to minimize the risk of rupture, and subsequent contamination, caused by a seismic event."
- 13uuu. Mitigation Measure #113 of the Draft EIR text is consistent with the Ritter Ranch Specific Plan (refer to page 4-42 and 4-43). Additionally, Mitigation Measure #113 will be revised to read: "The applicant shall provide a pumper and patrol prior to the issuance of the 250th certificate of occupancy, and provide a fully operational fire station of an acceptable size and location, as determined by the Consolidated Fire Protection District by the 1,800 Certificate of Occupancy." shall include, "The applicant will receive credit against any fire service fees for the provision of new fire facilities and/or equipment."
- 13vvv. Comment has been acknowledged. Mitigation Measure No. 115 will be revised to reflect this intent in the Final EIR, and will be taken into consideration by the City during project deliberations.
- 13www. Mitigation Measure #116 will be clarified to include, "Prior to issuance of grading permits for each area of the Ritter Ranch Specific Plan, the applicant shall provide appropriate safety and etiquette signs for all offstreet trails within each area, in order to minimize ...".
- 13xxx. Mitigation Measure #117 will be modified to indicate that "lights shall be designed and located so that direct lighting is confined to the property, and lighting should not be of greater intensity (wattage) than otherwise necessary for public safety." reference Mitigation Measure #60.

- 13yyy. This Mitigation Measure (#120) will be eliminated from the Final EIR text because it could potentially conflict with the City's proposed Source Reduction Element. ~~This comment will be taken into consideration by the City during project deliberations.~~
- 13zzz. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations. Information regarding maintenance services and costs was obtained from the City of Palmdale Department of Public Works. This information indicates that although the increase in the City's general fund revenue generated by the Ritter Ranch development will offset a portion ~~small part~~ of the maintenance costs of the project, these increases will not provide the total costs ~~a significant fraction~~ of the maintenance costs created by the development.
- 13aaaa. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.

Sociology/Anthropology Department
California State University, Bakersfield
9001 Stockdale Highway
Bakersfield, California 93311-1099

805/664-2368



Laurie Lile
Associate Planner
City of Palmdale
38306 9th St. East
Palmdale, California 93550

October 10, 1991

Dear Ms. Lile

Thank you for the opportunity to comment on the "Phase II Archaeology at Ritter Ranch, Tentative Parcel Map No. 22833, Palmdale California" (June 14, 1991). I have read the document and offer the following.

1. The study reports on inventory and evaluation of the 10,500 acres (I thought it was 11,500 acres) Ritter Ranch project. Some 4,500 areas was inventoried during Phase I while the other acreage was completed in Phase II. Why was the entire project area inventoried in the Phase I (inventory-level) Study? The purpose of any resource study under CEQA is to identify potential impacts to such resources. If a complete inventory is not conducted (and thus not all such resources are located), how are impacts determined and plans made accordingly? If one is submitting a proposal to conduct test-level investigations, is it not best to have identified those sites previously?

2. The author(s) (authorship is unclear) of the study appear to be unaware of some of the basic literature for the western Mojave Desert, specifically the synthetic monograph published in 1988 (Sutton, An Introduction to the Archaeology of the Western Mojave Desert, Coyote Press Archives of California Prehistory No. 14). Instead, Robinson (1987) is cited. No citation is provided in the bibliography (p. 54) but I assume they refer to "The Prehistory of the Antelope Valley, California: An Overview" published in a 1987 volume of the Antelope Valley Archaeological Society. Actually, that paper is a reprint of a 1977 article from the Kern County Archaeological Society Journal and is woefully out of date (it was almost so in 1977). Clearly, better background research is needed for persons working in the region. How much such omissions influence interpretations is not clear to me (see No. 3, below).

a

3. A major research question for the area, specifically the Ritter Ranch area, is the boundaries of the various aboriginal populations. The CA-LAN-767 site contains a cemetery that appears to be different than others in the region, suggesting the presence

of a cultural boundary (see Sutton 1980, "Some Aspects of Kitanemuk Prehistory," *Journal of California and Great Basin Anthropology* 2(2):214-225, and monograph noted above). Also, the place of the western Mojave Desert in the interaction spheres postulated for the western Mojave Desert is unclear and should be investigated (see Sutton 1989, "Late Prehistoric Interaction Spheres in the Mojave Desert, California," *North American Archaeologist* 10(2):95-121).

4. I know that there are at least two prehistoric midden sites located on the Lazy T Ranch, in the process of being acquired by Ritter Ranch. Was this part of the inventory? Are these sites known to the authors (they may be, I cannot remember the trinomials). I know that Robinson (A.V. College) has worked (conducted excavations, no report) at both sites. Both these sites should be considered, along with any other sites on the Lazy T Ranch.

5. While it is commendable that many of the sites were tested for subsurface remains, the use of augers will almost insure negative results. In the absence of a distinctive soil color that indicates a cultural deposit, augering relies on encountering artifacts below the surface. Given the very small size of the augers (in this case 4"), the chances of such an encounter are not good. If the site contains a scarce deposit, it likely would be missed. Actual excavation units (e.g., 1 x 1 m.) are much better (but also are not perfect) to located buried deposits.

Excavation units were placed at only four sites, the remainder being subjected to auger testing. I consider it likely that subsurface deposits at the augered sites were missed and that their evaluations are incorrect. In the Tehachapi Mountains, we recently found that seven of nine sites with no surface indications did contain a subsurface deposit of varying density. I doubt that an auger program would have detected such deposits.

I am surprised at the absence of a subsurface deposit at a number of sites. Each (CA-LAN-1630, -1631, -1632, -1633, -1635, -1954, -1958, -and 1960) appears (by their descriptions) to contain substantial information. Several of the sites contain surface scatters, numerous features, and in one case, (possible) rock rings. Each of these sites was evaluated using auger series. I suspect the evaluations are in error. The term "visible midden" is used throughout the report. This incorrectly assumes that middens are always visible.

6. The laboratory methods described on page 15 are standard and commonly used. However, the authors should note that this process destroys considerable data that may remain on an artifact in the form of immuno-proteins. I would encourage persons not to wash artifacts.

7. I found the results section very difficult to follow. Each site is considered separately but many of the data are in text. Tables and illustrations would have added significantly to the presentation. It is laborious to continually refer back to the artifact catalogs to get the information. I could not find the obsidian hydration and sourcing data.

8. The level of analyses appears to be minimal. I could find no discussion of the cupules, rock art styles, ground stone assemblages, trade, ethnicity, or of any of the other important research questions. Also, it is likely that many sites were misinterpreted (from the use of augering, as discussed above), altering their interpretation.

9. I am concerned that so many sites are being "written-off" based on very minimal examinations (again, this is based on my view of augering as an evaluation technique). I think it almost certain that some of these sites contain subsurface remains that were missed. I encourage you to reconsider whether adequate evaluation has been completed on these sites.

I hope these comments are of use. If there are any questions, please do not hesitate to contact me.

Sincerely,



Mark Q. Sutton
Associate Professor

cc: Beth Padon, LSA Associates

Response No. 14

California State University, Bakersfield
Sociology/Anthropology Department
Mr. Mark Q. Sutton, Associate Professor

- 14a. Comment has been acknowledged and the City of Palmdale is in concurrence. The City recommends that the cultural resources mitigation measures in the Draft EIR be modified to require more detailed analysis and additional testing of the archaeological sites on the Ritter Ranch property, to be conducted prior to the approval of subsequent development applications at the discretion of the Planning Director.

Post-It - grand fax transmittal memo 7671 3 of pages - 6

To: LAURIE LILE	From: MAGGIE IDE
Co: City of Palmdale	Co: So. CA. Rsn. of Govts
Dept: Planning	Phone: (213) 236-1981
Ext: (905) 274-1613	Ext: (213) 236-1825

COMMENT NO. 15



818 West Seventh Street, 12th Floor • Los Angeles, California 90017-3435 ☐ (213) 236-1800 • FAX (213) 236-1825

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Ms. Laurie Lile
City of Palmdale Planning Department
38306 9th Street East
Palmdale, CA 93550

October 11, 1991

RE: City of Palmdale Ritter Ranch Specific Plan Document and Draft
Environmental Impact Report
SCAG Clearinghouse Number LA-55162-EDR

Dear Ms. Lile:

Thank you for submitting the Draft Environmental Impact Report and Ritter Ranch Specific Plan Document to SCAG for review and comment. As Areawide Clearinghouse for regionally significant projects, SCAG assists cities, counties, and other agencies to review projects and plans for consistency with the Regional Housing Needs Assessment (RHNA), Regional Mobility (RMP), Growth Management (GMP), and Air Quality Management (AQMP) Plans, all of which are included in the State Implementation Plan (SIP).

The attached comments are meant to provide guidance for completing the proposed project within the context of our regional goals and policies which are based in part upon state and federal mandates. While neither the project sponsor nor the lead agency is required to undertake the specific actions recommended by SCAG or other agencies through the Intergovernmental Review Process, there are requirements in state and federal laws for consistency with regional goals and plans.

Approval of this project by the City of Palmdale could signify a policy change for this area and, quite possibly, for some of the adjacent communities. If this does occur, we request that any such policy change be communicated to SCAG and to other affected planning agencies so that the impact can be analyzed and factored into the 1992 Regional Comprehensive Plan which is now under preparation.

If you have any questions about the attached comments, please contact Maggie Ide at (213) 236-1881 or Paul Hatanaka at (213) 236-1809. They will be happy to work with you to address the comments presented herein and, if necessary, develop a mitigation plan which meets regional, state, and federal requirements.

Sincerely,

Anne Baker

ANNE BAKER
Director of Environmental Planning
AB:MAI 95

Ms. Laurie Lile
October 11, 1991
Page 2

Description:

The proposed Ritter Ranch Specific Plan project is located in the southwest foothills of the Antelope Valley. The proposed project as addressed within the Environmental Impact Report consists of the proposed 10,625 acre Ritter Ranch Specific Plan and approximately 449 acres on several adjacent properties. The Ritter Ranch project and other adjacent properties are proposed to be annexed into the City of Palmdale. The project designates 7,601 acres for open space, and 3,024 acres for development. Designated land uses include: 7,200 residential units; 73.1 acres neighborhood commercial; 7,906.3 acres open space and recreational areas; and seven school sites. No development plans have been proposed as of yet for the annexation areas.

GROWTH MANAGEMENT

Analysis:

There are a number of regionally significant projects in the vicinity of the proposed Ritter Ranch Specific Plan Project site which have been recently approved, are pending approval, or are in the planning stages. The cumulative impacts of this surge of development require careful analysis to determine the overall relation to the GMP, RMP, RHNA, AQMP and potential impacts on the Regional Comprehensive Plan now under preparation within the SCAG organization. The City of Palmdale and each of the neighborhood cities in this subregion may want to jointly examine the trends and precedent-setting development policies that are unfolding in the area.

There are a number of policies expressed in the Growth Management Plan which are particularly relevant to this project. Among them are policies which would:

- o Promote future patterns of urban development and land use which reduce costs of infrastructure construction and make better use of existing facilities, and achieve a good match between future growth and the phasing of new facilities or expansion of existing ones.
- o Encourage growth to occur in and around:
 - activity centers
 - transportation node corridors
 - underutilized infrastructure systems
 - areas needing recycling and redevelopment
 - encourage mixed-use developments and other planning techniques which make employment centers easy to walk to or reach by transit.
- o To the degree possible, achieve a balance, by subregion of the type of jobs with the price of housing.

Jobs/Housing Balance

From the standpoint of only the job/housing balance performance ratios, the project conforms to GMP policies. In order for the Ritter Ranch Specific Plan to be consistent with those job/housing performance ratios, at least 1,728 jobs would need

to be associated with the 7,200 housing units proposed by the project, or a reduction in VMT equivalent to the effect of the growth management policies would need to be achieved. The 2,268 jobs provided by the project are more than ample to meet the GMP job/housing balance criteria.

This project DEIR does not however, address the "affordability relationship" between the job-producing development and the proposed housing development. The DEIR states that because of the location of Palmdale relative to major employment centers of the region, longer commuting distances may increase the average trip length and thus increase VMT by some unknown fraction. The total growth represented by the proposed development is a "non-negligible" fraction of the regional automotive air pollution emissions burden. The DEIR also states that the impact of growth on air quality is tied to economics and demographics.

This project requires a study of the number of future jobs of the proposed neighborhood commercial development which provide wage income that qualifies for the proposed housing development. Such a study may assist in assessing more accurately, the VMT generated, as well as other impacts associated with this level of growth in the North Los Angeles subregion at this time.

Sewage Treatment

The DEIR states that the 2.1 mgd of wastewater which is expected to be generated by the Ritter Ranch development, as well as the cumulative effect of additional wastewater resulting from other proposed projects in the Palmdale area (such as City Ranch), will constitute a significant increase over the existing demand. Provision of sanitary sewer service to the project will require the construction of major on-site and off-site improvements including the expansion of the Amargosa Creek Trunk Sewer. The DEIR states that wastewater will be treated at the Palmdale Water Reclamation Plan (WRP) which currently has an average flow of 7.8 mgd.

The DEIR states that the Sanitation Districts will continue to incrementally expand facilities as needed to accommodate additional development up to the allowable level of 15 mgd. The DEIR does not state the decision which would indicate approval or denial of the WRP expansion proposal. These statements assume that sufficient capacity will exist to accommodate the proposed development. They do not, however, actually make specific comparisons of approved plant expansions with proposed project sewage treatment requirements.

The DEIR should include a comparison of proposed development project sewage treatment requirements with existing and planned WRP capacities. Planned WRP capacities should take into account the constraints imposed by AQMP Conformity with respect to growth management. The proposed project does not evaluate the WRP expansion with AQMP/SIP requirements for wastewater conformity should the proposed WRP expansion require federal funding. If this is the case, the proposed Ritter Ranch project should illustrate the WRP phasing plan required for conformance with the AQMP and the subsequent ability of the WRP to service Ritter Ranch and other proposed development projects.

Water Service

Water supply is also an issue of concern in terms of growth management. The DEIR

Ms. Laurie Lile
October 11, 1991
Page 4

states that water systems improvements will be required to provide an adequate water supply to the proposed Ritter Ranch project area. Required mitigation measures will substantially reduce project impacts, although significant individual and cumulative impacts to the regional water supply are expected to remain. The DEIR does not quantify demand of the project as it relates to available regional water supply. The DEIR does not state from whom the Los Angeles County Waterworks Districts obtain water and the amount of their entitlements. The DEIR also does not evaluate the cumulative impacts of supplying water to the Ritter Ranch Specific Plan and the availability of water to projects currently under consideration by the City of Palmdale and surrounding communities.

Recommendations:

From a regional perspective, the basic question that should be addressed is what impact the approval of this project would have on local, subregional and regional plans to balance growth with the provision of transportation facilities and other necessary public infrastructure. The California Environmental Quality Act requires that EIR's discuss any inconsistencies between the proposed project and the applicable regional plans as well as local general plans (Section 15125 [b]).

For any project that is approved, the City of Palmdale should attempt, in so far as possible, to ensure that the following objectives are satisfied:

- o A balance between the type of jobs being created with the price of housing. The growth management-related questions that should be specifically addressed in the decision making process include: (1) where will the estimated 2,268 neighborhood commercial workers live, (2) how will these workers get from home to work, (3) how many vehicle miles of travel will this involve, and (4) are the assumptions related to employment and the income composition of the workers consistent with those made for the circulation/travel study for the air quality analysis?
- o That the Ritter Ranch Specific Plan adequately address the provision of wastewater treatment facilities which are sized and phased in accordance with the GMP and AQMP. The question of whether a finding of conformity of the required wastewater facility with the GMP and AQMP should be considered. This may result in the need to examine alternative plans and build-out schedules.
- o That the Ritter Ranch Specific Plan adequately address questions associated with adequate water supply. This will result in the need to examine available regional water supply and the resulting impact from this project and those projects proposed in the surrounding area.
- o The proposed project would appear to counteract the local input used to formulate the policies of the GMP and would therefore appear inconsistent with the GMP. If the City of Palmdale chooses to approve this project, a phasing plan should be developed in concert with the upcoming 1992 Regional Comprehensive Plan.

TRANSPORTATION

Analysis:

As areawide clearinghouse, SCAG requests that TDM programs incorporated as mitigation measures in EIR's or as part of project conditions include the following elements:

- o A detailed description of the TDM measures incorporated into the project as mitigation measures or project conditions.
- o Expected effect and VMT/VT reduction targets for each component of the TDM program.
- o Funding sources for each program component.
- o Identification of the agencies or persons responsible for monitoring and administering the TDM programs.
- o An implementation schedule for each TDM program component.

As stated in the DEIR to the proposed Ritter Ranch Specific Plan, the proposed project will generate approximately 89,180 vehicle trips and 535,080 VMT daily, based on an estimated 6 miles per trip.

The DEIR briefly lists various strategies that will be adopted to reduce VMT which relate to Measures 1a and 1b of the AQMP, Appendix IV-E. To be adequate for the purposes intended by the SIP, the TDM program should include the above elements.

Recommendations:

The proposal should go beyond suggestions that certain measures be merely considered or examined. The project should be designed to include quantifiable commitments to specific TDM programs with clear delineation of responsibilities, trip reduction targets, financial arrangements and specific schedules for action on each specific measure.

SIP CONFORMITY

A project is found to be in conformance with the State Implementation Plan (SIP) when it has satisfied the following three criteria:

1. It improves the subregion's job/housing balance performance ratio or is contributing to attainment of the appropriate subregional VMT target.
2. It reduces vehicle trips and vehicle miles traveled to the maximum extent feasible by implementing transportation demand management strategies.
3. Its environmental document includes an air quality analysis which demonstrates that the project will not have a significant negative impact on air quality in the long term.

Ms. Laurie Lile
October 11, 1991
Page 6

Findings

As described in the Draft EIR, the proposed Ritter Ranch Specific Plan does not conform to the SIP at this time.

Recommendations

Prior to considering the approval of the Ritter Ranch Specific Plan, the following issues should be addressed by the City of Palmdale:

1. Possible inconsistency with the Regional Growth Management Plan. This is a mixed-use project which would provide housing and employment opportunities, and help to redress the jobs/housing balance in the subregion. However, it is located in an area not previously planned for housing development of this magnitude. The project therefore may be inconsistent with the pattern of development portrayed in the GMP. Further analysis is needed to determine the degree of inconsistency and the impacts of such inconsistency for future planning in the subregion. SCAG recommends that the City of Palmdale work with SCAG on the 1992 Regional Comprehensive Plan to establish an appropriate phasing schedule in order to ensure a consistent sizing and service phasing with regional infrastructure and to ensure compliance with the AQMP/SIP and the Clean Air Act.
2. Imbalance between the cost of housing and the types of jobs being created. The EIR fails to address the costs of the proposed new dwelling units in relation to the incomes of the persons who will be employed in the neighborhood commercial and the effect of this relationship upon commute patterns and air quality.
3. Lack of wastewater treatment facilities to serve the project. The DEIR fails to adequately address the wastewater conformity requirements of the AQMP/SIP. Construction of wastewater treatment facilities to serve this project could be jeopardized by a lack of consistency with the GMP.
4. Unresolved circulation, traffic, and transportation issues. The transportation demand management element of the project is not yet adequate to alleviate the burden that the project will impose on the circulation and transportation systems within the community and region.

If the Ritter Ranch Specific Plan Project is approved, it is requested that SCAG be notified of the City Council's action so that the implications for the Regional Comprehensive Plan, which is now under preparation, can be evaluated with respect to transportation, wastewater treatment and other service systems.

Response No. 15

SCAG

Ms. Anne Baker, Director of Planning

- 15a. Comment has been acknowledged. No response is required.
- 15b. A study of site-specific "affordability relationships" is considered speculative, and it would be difficult or infeasible to ensure that any study assumptions were realized as the project builds out. The increase in VMT is assumed significant due to the assumed commutes to the Los Angeles basin. However, project onsite employment opportunities will offset this impact to an unknown degree.
- 15c. Comment has been acknowledged. However, the proposed Water Reclamation Plant (WRP) expansion is a Sanitation District issue which requires separate environmental review and approval. The Los Angeles County Sanitation District did not comment on the project's Notice of Preparation (NOP) or on the Draft EIR. A Will Serve Letter will be required prior to the applicant receiving building permits.
- 15d. The Draft EIR addresses cumulative water supply impacts, stating that the estimated 30,000 gallons/minute from southwest Palmdale alone will be significant. Please refer to Response Nos. 2a, 2b, and 2c, and to Response No. 20pp.
- 15e. Comment has been acknowledged, and will be taken into consideration by the decision makers during project deliberations.
- 15f. Comment has been acknowledged, and will be taken into consideration by the decision makers during project deliberations. The proposed project includes a ~~Transportation Demand Management Plan~~, Park & Ride contributions and pedestrian/equestrian/bike trails, and will comply with the new AQMD Rules and Regulations (as adopted) to be implemented by the City of Palmdale (refer to Mitigation Measure Nos. 27 and 72).
- 15g. Comment has been acknowledged, and will be taken into consideration by the decision makers during project deliberations.
- 15h. Comment has been acknowledged, and will be taken into consideration by the decision makers during project deliberations.
- 15i. Please refer to Response No. 15b.
- 15j. Please refer to Response No. 15c.
- 15k. Comment has been acknowledged, and will be taken into consideration by the decision makers during project deliberations. Additionally, please refer to Response No. 15f.
- 15l. Comment has been acknowledged. SCAG will be notified of the City Council's action if the Ritter Ranch project is approved.

ANTELOPE VALLEY

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KUTY Radio

October 11, 1991

Ms. Laurie Lile
 City of Palmdale
 38306 9th Street East
 Palmdale, CA 93551

Dear Ms. Lile:

The South Coast Air Quality Management District and the Southern California Association of Governments have adopted a strategy to balance the creation of new jobs and new housing units in areas throughout Southern California in order to help meet the air quality goals of their 20-year Air Quality Management Plan.

The analysis of the jobs/housing balance in the Draft Environmental Impact Report for the Ritter Ranch Specific Plan indicates that this project will have a positive impact on this important clean air goal. For this reason (among many others), I urge city approval of a Final EIR and of the project itself.

Further, Section IV-B, Table 6 and Section V-C indicate that Ritter Ranch development will generate 2,268 new jobs, which is 540 more than the number required to keep Ritter Ranch consist with the Growth Management Plan's requirements for jobs/housing balance. These excess jobs will help the City of Palmdale and the Antelope Valley meet their goals with regard to the Growth Management Plan. Approval of the Ritter Ranch plan, which provides for commercial development in close proximity to residential development, will underscore the City's commitment to achieving jobs/housing balance.

Sincerely,

Howard L. Brooks
 Howard L. Brooks

CC: Palmdale City Council
 Palmdale Planning Commission

Response No. 16

Antelope Valley Board of Trade

Mr. Howard L. Brooks

- 16a. Comment has been acknowledged, and will be taken into consideration by the decision makers during project deliberations.

Los Angeles County
DEPARTMENT OF
REGIONAL PLANNING
320 West Temple
Los Angeles, California
974-84

James E. Hart, AIC
Planning Director

October 11, 1991

Ms. Laurie Lile
City of Palmdale Planning Department
38306 9th Street East
Palmdale, CA 93550

SUBJECT: COMMENTS ON RITTER RANCH SPECIFIC PLAN EIR

Dear Ms. Lile:

Thank you for the opportunity to comment on the Environmental Impact Report for the proposed Ritter Ranch development. We appreciate your distribution of the document to numerous other County agencies, each having technical expertise in their own specific area of interest.

This agency's EIR comments will focus on broad planning issues; please refer to comments by the appropriate County agency for evaluation of technical aspects such as specific traffic impacts, air quality or fire services. Our comments are as follows:

- Acknowledging that this Specific Plan EIR is not necessarily the environmental document which would be used for processing subdivisions and other discretionary cases, it nevertheless will carry implied environmental approval of the project as envisioned by the applicant. As such, the document should be made as complete as possible at this time so that subsequent environmental documents will not uncover new aspects of impacts that could have been disclosed at this stage. Additional information, as outlined below, would be helpful in this regard.
- With significant modifications to existing topography, a series of before and after cross-sections and panoramas would help to visualize the final product. Exhibit 16 (Visual Analysis--Viewshed) is too general to be of much assistance. Additionally, a map showing generalized areas of both cut and fill should be provided.
- It is acknowledged that circulation is a major issue, and that the EIR states that offsite improvements may not be available to mitigate impacts--particularly on Bouquet Canyon. The EIR should include a discussion of how development phasing and impact monitoring will be designed to either a) preclude occupancy of any project phase which will create significant traffic impacts or b) require redesign of the project to reduce such impacts to acceptable levels. Water supply is another resource for which a phasing control should be provided.

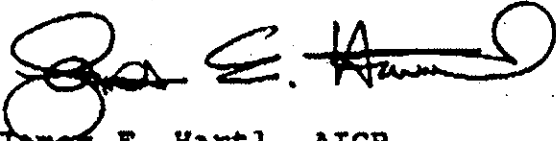
- The Alternatives (Section VI.) are only superficially evaluated. General schematic maps would help envision the concepts suggested, and allow for more thorough documentation and quantification of revised impacts. A table allowing a side-by-side comparison of impacts for the alternatives would be most helpful. c
- The "No Project/Existing Zoning" Alternative assumes a residential density of one unit per two acres, which does not reflect the County's Hillside Management policies. Thus, the maximum number of units is inflated by 30%--from 4203 allowed by the AV Plan (based on the EIR slope analysis, pg.66) to 5470 in this EIR alternative. The Antelope Valley Area Plan allows a maximum of 1 dwelling/2 acres on slopes up to 50%, and 1 dwelling/20 acres on slopes over 50%. In addition, 70% natural open space is required on all slopes over 25%. Also, this alternative states that no commercial uses would be included; the AV Plan, however, would permit local serving commercial uses, as needed throughout the development. d
- It is unclear in both the Summary and in Section VIII whether or not unavoidable significant impacts will be entirely adverse. We would hope, for example, that although the project will generate a demand for schools, adequate facilities would be made available by this project to preclude adverse impacts on the school system. e
- The groundwater recharge issue should be comprehensively evaluated to consider net change in runoff (increased impervious surfaces vs. increased landscape watering) and the resulting quality of the subsurface water. f
- The Amargosa Creek Improvement Project will likely be significantly affected by the Ritter Ranch project. CEQA requires that such impacts be evaluated in the Ritter Ranch EIR, rather than only in a separate document. g
- "Mitigation" Measure #9 appears to be more of an attempt to reduce liability on the part of the City, rather than a mitigation of seismic impacts. h
- The proposed Wetlands Restoration Plan (pg. 158) would be such a significant feature of this project that it should be included in the EIR. Additionally, a map showing where streambeds would either be left in their natural state or altered by the project would help in evaluating biologic impacts. i

Ms. Laurie Lile
October 11, 1991
Page 3

We hope these comments will constructively contribute to this EIR. If you have questions about our comments, please contact Mr. Lee Stark at (213) 974-6419.

Very truly yours,

DEPARTMENT OF REGIONAL PLANNING

A handwritten signature in dark ink, appearing to read "James E. Hartl", written over a horizontal line.

James E. Hartl, AICP
Director of Planning

JEH:LRS:lrs

Response No. 17

Los Angeles County Department of Regional Planning
Mr. James E. Hartl, AICP

- 17a. Comment has been acknowledged, and will be taken into consideration by the decision makers during project deliberations. Additional exhibits are provided in the Ritter Ranch Specific Plan, which is available for review at the City of Palmdale. However, cut/fill maps are not required at this stage of conceptual approval, and will be provided prior to approval of development plans.
- 17b. Comment has been acknowledged, and will be taken into consideration by the decision makers during project deliberations. Also refer to Response No. 23.
- 17c. A table will be included in the Alternatives Section of the Final EIR to allow a side-by-side comparison of impacts for the alternatives. Schematic maps were not prepared due to the conceptual nature of alternatives.
- 17d. The Final EIR text will reflect information in this comment.
- 17e. "Unavoidable significant impacts" are adverse. The adverse school impact is with respect to middle school students (see Response Nos. 13v and 13w).
- 17f. Groundwater is assumed to increase due to irrigation (even runoff from streets and rooftops will ultimately drain into detention basins and unlined channels onsite and within Amargosa Creek).
- 17g. The Amargosa Creek Improvement Project is being processed separately, as it is a regional public works project not directly linked to Ritter Ranch (Ritter Ranch is one of many participants in Assessment District 90-1).
- 17h. This is a public notification/disclosure measure intended to advise residences of potential safety hazards.
- 17i. Comment has been acknowledged and will be considered by the decision makers during project deliberations. It is not possible to prepare the Wetlands Restoration Plan at this time, as there are no detailed grading plans available, and the precise configuration and uses within Amargosa Creek Flood Control Basin "B" has yet to be determined.

Palmdale, California 93550

Dear Mr. Miller

Air, water, land, life quality, and fault proximity are our primary objections to this proposed development. Specifically; recharge of the Antelope Valley ground water by Amargosa Creek would be adversely impacted in the following ways that are unmitigatable: total dissolved solids from the extensive recirculating of the landscape due to earthquake mitigation, road runoff, oil and hydraulic fluid from construction equipment and other motor vehicle use and repair, and the virtual certainty the San Andreas fault severing the sewage trunk line, that if built would be routed along the fault line and creek bed. Pesticide and herbicide use both domestically and on the proposed schools and golf course would create adverse impacts on air and water quality.

Local residents project an 850% increase in air pollutants due to increased vehicle usage in Laramie Valley and the six lane highway proposed to provide access to this extensive development. Is this development downwind of the only cement plant west of the Mississippi River to use hazardous waste solvents as fuel? In an area known for its high velocity and vertical winds, this facility exceeded established air pollution limits for: arsenic, beryllium, cadmium, chromium, dioxins & furans, lead, mercury, and sulfates; 9 out of 26 substances rated for out of the minimum of 1000 compounds that result from the incineration of the 103 substances they are permitted to burn. But, these substances are contaminated with often unknown substances, that is why the are disposed, and the analytic chemistry does not exist to determine all of the products of combustion of these unknown substances that may be more toxic than the substances themselves (like dioxins & furans). Will the schools, roads and homes in this project use cement from this facility? National Cement/Synch Corp. were fined \$450,000 in 1969 alone, by state health and county air pollution agencies, for overburning their permitted 404 hazardous waste fuel up to 938 for 164 days that year.

The fact that this land is suitable habitat for the Spotted Owl, Grey Fox, Bobcat, Coyote, Mountain Lion, Deer and Condor make this area wholly unacceptable for development. Let us leave this wild and beautiful area for our children's children to experience and enjoy. I criticize this EIR on the following: lack of serious and/or change updates, the fee stated for EIR copies was \$71.40 far above CDA mandated printing costs, and the final day of the 45 day written comment period on a postal holiday, "Indigenous Peoples Day".

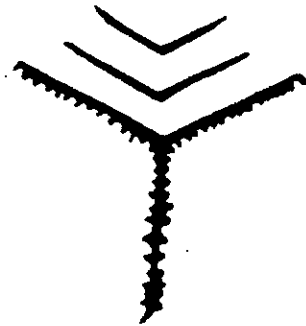
Love the Earth.
Joe Blackburn

Response No. 18

Desert Citizens Against Pollution

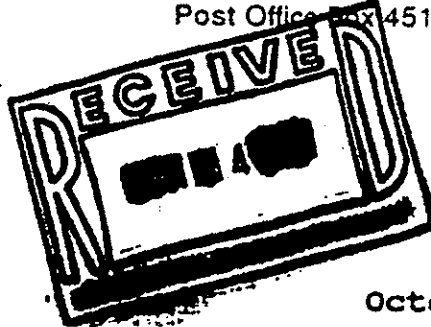
Mr. Joe Blackburn

- 18a. Comment has been acknowledged, and will be taken into consideration by the decision makers during project deliberations.



ANTELOPE VALLEY ARCHAEOLOGICAL SOCIETY, INC.

Post Office Box 4514 • Lancaster, California 93539



October 14, 1991

Ms. Laurie Lile
City of Palmdale
Planning Department
38306 9th Street East
Palmdale, CA 93550

Re: Ritter Ranch EIR and Phase II Report

Dear Ms. Lile:

Thank you for providing the AVAS with the opportunity to review the Ritter Ranch documents. We have some concerns about the adequacy of the Phase II report.

The major concern is that the report fails to provide a synthesis of the sites contained on the Ritter Ranch property. The current state of knowledge about the prehistory of the Antelope Valley is such that these sites have the potential to provide data useful in answering many research questions. Ritter Ranch contains a large number of sites and a full range of site types. A region synthesis needs to be completed and will probably show the sites to be of greater significance than indicated by the site by site evaluation contained in this report. Their research potential has not been exhausted and as such the sites are still significant.

The level of preservation recommended in this report is inadequate given the number and types of sites. It should be evaluated for consideration as a historic preservation district. As such the area is valuable for its research potential which is a non renewable resource and should be preserved for the future and the development of methods which will allow more information to be collected from these sites.

The cupule sites, other rock art, and "hunting blinds" are resources which are poorly understood at this time. Relocating the cupule boulders divorces them from their context which is important in understanding them. The abundance of cupule and other rock art sites indicate that this was an area of extensive ritual or ceremonial activity yet this is not addressed in the report. Again the sites need to be preserved.

The level of documentation in the report is inadequate. There should be more maps and sketches of the sites, especially the cupules. The projectile points need to be illustrated.

The report list a projectile point found at LAN-1635 which is described as "either a large desert side notched point or an Elko side notched point" (p31.). These point types represent very different time periods. The Desert Side Notch is indicative of post A.D. 1200 occupations while the Elko Side Notch is indicative of a 2000 B.C to 500 A.D. occupation. The point needs to be typed more accurately if possible. At the very least it should be illustrated in the report. a

There is little or no temporal information in the report. The temporal relationships of the sites needs to be determined if possible so that the relationship between sites can be identified.

The report is generally incomplete, fails to mitigate the impact to the sites, and requires further work. The research potential for these sites has not been fully addressed. It is our hope that an effort will be made to preserve as much of this sensitive area as possible. If preservation is not considered feasible, then data recovery needs to be conducted to assure that a maximum amount of data is recovered from the sites prior to their destruction.

We await your response to our comments on what we consider to be significant archaeological resources that have not been adequately mitigated.

Sincerely,

Melinda Walton
Antelope Valley
Archaeological Society
Environmental Review
Committee Chair

Response No. 19

Antelope Valley Archaeological Society, Inc.
Ms. Melinda Walton

19a. Please refer to Response No. 14a.

COMMITTEE NO. 20
Leona Valley Town Council

P. O. Box 795
Leona Valley, California 93551

14 October 1991

City of Palmdale
Planning Department
38306 9th St. East
Palmdale, CA 93550

Attn: Laurie Lyle

Subject: Review of the Draft Ritter Ranch Environmental Impact Report (EIR)

In addition to the attached specific comments regarding the subject document, the following documents are attached by reference for inclusion into this review:

- Review of the Draft Ritter Ranch Specific Plan, Leona Valley Town Council, dated 2 October 1991
- Review of the Draft Amargosa Creek Improvement Project (Phase II) (ACIP) Environmental Impact Report (EIR), Leona Valley Town Council, dated 4 October 1991

Very truly yours,


Mary Ann Floyd
for Leona Valley Town Council

Leona Valley Town Council

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REVIEW AND COMMENTS BY LEONA VALLEY TOWN COUNCIL ENVIRONMENTAL IMPACT REPORT (EIR) RITTER RANCH SPECIFIC PLAN

NOISE

The EIR indicates there will be severe noise impact to residents along Elizabeth Lake Road as a result of the traffic created by this project (and associated AAD 90-1). The noise exposure information is deficient.

- a. Existing noise levels and impact from future traffic is not evaluated for Bouquet Canyon Road, San Francisquito Road, Sierra Highway, City of Santa Clarita, communities of Lake Elizabeth and Lake Hughes, Acton, and Aqua Dulce
- b. Existing noise exposure information has not been gathered in compliance with Section 65302, Calif. Government Code. Table 13, Page 165, for instance indicates that current CNEL at Elizabeth Lake Road near Godde Hill Road to be 64.4. A notation indicates that measurement was not based on a 24-hour span, but during a brief moment when "a road crew was working nearby". This is hardly an accurate measurement and leads one to question the credibility of the other data presented.

A new traffic study should be conducted which is in compliance with the noise element criteria defined in Section 65302.

Noise level projections based on the DKS Study, although excessive, are low and fail to address the 20-year plus construction traffic and worker travel to the service jobs provided on Ritter Ranch.

Page 171 addresses excessive noise levels on Elizabeth Lake Road, what are the mitigation measures for those adjacent residents where noise walls are not feasible and/or ineffective?

(Page 179) Where will these noise walls be located on Elizabeth Lake Road? How high will they be and type of construction? What views will be lost? How is it possible to incorporate noise walls along a scenic highway without losing the quality of a scenic highway.

"...including raised medians..."

the raised, planted median is not practical and would pose a threat to safety as it would bar current residents (emergency vehicles, etc.) from accessing their properties.

TRAFFIC

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(Page 105) 89,180 daily vehicle trips based on an average 6-mile trip seems overly low. Since the RPA project is up to nine miles distant at its west end, from the City of Palmdale, traveling six miles for most residents will not take them off the Ritter Ranch let alone return. Since no appreciable - industrial job base exists in the Palmdale/Lancaster/Leona Valley area, these daily trips will most likely include travel south to the L.A. basin for work which will overload the presently stressed Freeway 14, Sierra Highway, and our local Bouquet and San Francisquito Canyon roads. The DKS Traffic Study fails to address the regional impact from this project. h

(Page 200) Elizabeth Lake Road

The description contains gross errors and is misleading. Elizabeth Lake Road is not a major thoroughfare in the Antelope Valley as it traverses only the Leona Valley. The description seems to indicate that what they are referring to as Elizabeth Lake Road is actually Highway 138. The intent of this "error" is highly suspect as it appears to attempt to promote the cause for expansion of Elizabeth Lake Road (AAD 90-1). The description of the roadway needs to be corrected. Further, if Highway 138 is such a critical component to regional circulation, that it is suggested that AAD 90-1 be abandoned and an assessment district be proposed to widen Hi 138. i

The service jobs that will be created on the RPA project will add additional traffic since these jobs will be filled by non-Ritter Ranch residents due to job/housing un-affordability. These mobile workers must be factored into the regional traffic impact. j

Construction traffic for the Ritter Ranch and all the other developments serviced by the Elizabeth Lake Road Improvement project will continue for 20 years plus. The DKS Traffic Study fails to address this additional long term traffic burden. k

In addition, since the traffic projections as noted above are low, likewise, air pollution projections which are tied to traffic are low. Air pollution projected based on 6-mile ADT's is unrealistically low, and adding a 400-space Park & Ride at Avenue S and Fwy 14 will not mitigate the regional traffic impact. l

(Page 204) Daily Traffic Volumes listed are significantly different than those listed for the same road distance listed in AAD 90-1 EIR Page IV, I-6. Since both charts were prepared by DKS Associates, why are they different and which one is correct? m

Table 22 forecast figures are the same as those listed in DKS Study July 1990, however, the original DKS Study indicated buildout analysis was based on forecasted projects which will produce 17,827 units. The RR EIR cites the same traffic projections (Table 22) yet cite buildout at 15,908 units. Both documents are dated July 1990. Traffic forecast figures should reflect the reduced number of units. These discrepancies are significant and the study should be revisited as well as all other projections which use these data as a base. n

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(AAD 90-1) (Page I-2) Road Improvements

"Improvement to several existing and proposed access roads are included..." The EIR indicates that the Elizabeth Lake Roadway expansion will end at 1,000 ft. west of Godde Hill Road. DKS Study indicates that traffic from Godde Hill Road to Bouquet Canyon will be 36,000. Elizabeth Lake from 1,001 ft west of Godde Hill Rd. can only accommodate 15,000, and Bouquet Canyon can accommodate 12,000. Where will the remaining 9,000 vehicles go? One might suggest they would go east to Palmdale, yet the fact is, that traffic coming south off of Godde Hill (peak hours), proceed west on Elizabeth Lake Road and turn left onto Bouquet Canyon Road as an alternate commute route to southern job locations. DKS studies are flawed. Also, in their evaluation of capacity of Bouquet Canyon Road, they did not take into consideration speed and capacity reduction due to the 129 curves within the 29 mile stretch of the road. Other experts indicate Bouquet Canyon's capacity is far less than DKS estimations. This EIR needs to conduct an accurate traffic study. The above observations indicate the proposed AAD 90-1 roadway expansion creates traffic and circulation problems rather than solve them.

In Planning Area 3, for safety purposes, a secondary access should be mandatory in the event Elizabeth Lake Road is not passable.

The roadway to Planning Area 3 from Elizabeth Lake road exceeds City roadway slope requirements. Its placement through the canyon should also be looked at due to historical water shed value in that area.

Phasing and interfacing with the City Ranch circulation plan is not defined. Should City Ranch not complete their portion of the right-of-ways prior to Ritter Ranch's need to complete theirs, will the City force City Ranch to complete their roadways or will the City condemn off-site right-of-ways through City Ranch? If the latter occurs, how will this be financed? By what authority?

The Los Angeles County Road Department highway design standards establishes both rural and urban standards for roadway development. Is the Plan making similar distinctions especially in Planning Areas 1 and 2 where "rural" roadway standards should prevail. Should not 90-1 be required to comply as well.

Exhibit 18 indicates 14 lanes are required at the Terra Subida and Palmdale Boulevard intersection, and Table 22 indicates maximum build-out volume at 16,200: Ranch Center Drive at Bridge Road is shown to require 7 lanes for 16,600 vehicles. Why the discrepancies in these and other projected figures?

There are no effective mitigation measures which address the impact at build-out to the Antelope Valley Freeway system or the southern connector routes.

JOB TO HOUSING BALANCE

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In addition to the above comments regarding the jobs that this project will allegedly generate, it must be noted that the City of Palmdale has applied for an "Enterprise Zone" in order to attract jobs/industry to the Antelope Valley. It must also be noted that this Federal act applies only to cities or counties which are economically depressed. An area may be designated an Enterprise Zone if at least 20 percent of its residents live below the national poverty level, and if the unemployment rate is at least one and a half times the national average. Palmdale must have met these criteria in order to apply for this special zone, indicating that the job to housing ratio is currently grossly imbalanced. Factoring in all the thousands of housing projects already approved for the Antelope Valley, the Ritter Ranch project cannot justify the need for or benefit-of additional 7200 units. Creation of secondary/service related jobs is not sufficient mitigation to correct this imbalance. **v**

AIR QUALITY

(Page C-15) "...no indications that implementation of the Ritter Ranch Specific Plan will adversely affect air quality on a local scale along any area roadways." This statement contradicts other statements in the Air Quality Impact Assessment Study prepared for Ritter Park Associates, as well as studies reported in the RR EIR, AAD 90-1, and RR Specific Plan. The source of the data upon which this statement is made appears to be based on a flawed model. These inconsistent evaluations must be redeveloped based on an accurate monitoring program and not conjecture or assumption. **w**

Also, what "area roadways" are they citing?

(Page C-12) What is the "unknown faction" that could increase the VMT figures? What impact? What mitigation measures? **x**

WETLANDS

As stated in the EIR, this development will be built over a period of 20 years. What mitigation is planned for construction debris flow during storms for the wetland (Amargosa Creek) collection point? Example: unplanted cut slopes, grading erosion. **y**

Wetland acreage is listed as 65 acres in one part of this EIR (Page E-5), and 57 acres in other sections; what is the correct acreage? and why the discrepancy? **z**

Mitigation measures to "revegetate/repopulate" the wetlands destroyed by this project have in the past proven unsuccessful. It must, therefore, be assumed that there is a high probability that these mitigation measures would also fail, resulting in the loss of the desert wetlands on the property. Creation of a public park facility in the wetlands is not an **aa**

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acceptable mitigation, as historically, these attempts to integrate wildlife/wetlands with human occupation and recreation is not compatible and dooms the wetlands to ultimate failure. The philosophy behind wetland preservation is to accommodate the wildlife population, not the human population. How will the mitigation measures ensure survival of the wetlands and wildlife population?

Section 230.10(A) of the E.P.A. Guidelines is quite clear on the subject of wetlands. Section 230.10(A) strongly protects all waters of the U.S., especially wetlands and other aquatic sites. Federal wetland policy clearly requires that there be no net loss of wetlands in the country. The guidelines prohibit destruction where there is practicable less damaging alternatives.

Construction and resultant destruction of the wetlands is not critical to the success of the project. Why were alternatives to avoid development in the wetland areas not recommended?

What impact will the resultant air and water pollution have on the wetlands should they survive?

WILDLIFE

(Page E-10) Local Residents have observed the following species on the RR property, yet these were not included in the Biological Resource Report:

- Burrowing Owl
- Desert Tortoise
- Mojave Ground Squirrel (No trapping methods used)
- Nesting sites of Golden Eagles
- Water turtles
- Egrets
- Migratory fowl (ducks, geese, etc.)

In addition, the following (general) species are common to the area, but were not listed as observed.

- Snakes (King, Red Racer, Rattle, etc.)
- Frogs (excluding Treefrog)

This EIR must include a full representation of all species which inhabit the property throughout the year. The limited observation period is not sufficient to accomplish this nor is the one evening of mammal trapping sufficient.

This report is lacking significant data and should be redone.

The siting of golf courses in riparian areas has proven to be unsuccessful. The attempt

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to interface wildlife and this form of recreation dooms the riparian and habitat areas to failure as it creates conflict between these two incompatible activities. Research indicates that wildlife generally looses and in turn, the wetlands cease to function. Example. Westlake Village Golf Course where migratory birds flock to the lake costing residents about \$1,000 apiece to maintain the "lake".

This Plan places 875 8,000 sq. ft. units in and around the golf course thus blocking the wildlife's ability to access the "watering holes" and food sources. As a result, they end up in people's yards - again, conflict. (Ref: San Gabriel Mountains, Santa Monica and Santa Susana ranges, San Fernando Valley, Encino, etc.)

Matthew T. Kouba, natural area supervisor for the Placerita Canyon Natural Area Park, has stated that development close to parkland threatens the natural balance of the animal and plant life. Sonia Thompson, program manager for the Santa Monica Mountains Conservancy, predicts the deer population in Los Angeles will eventually die as the land is eaten up by housing and business. One article quoted her as saying, "If they have no natural vegetation...and no water sources, and they go down to gardens where people put out poison..that is sort of a death warrant right there. Then there are domestic dogs that chase them into the road where they are hit by cars." Larry Sitton, wildlife management program supervisor for Fish and Game stated that deer don't become accustomed to new areas well, and as a result they are often killed, mostly victims of traffic accidents.

There are other areas within the property that would be more suited to this type of recreational activity. There must be no development planned around the wetlands/riparian areas if they and the wildlife are to survive. A golf course used by a select few does not justify the loss of a Federally protected environmental resource.

BIOLOGICAL RESOURCES - VEGETATION & FLORA

The report recommends several measures to reduce the biological impacts to the area: relocate the golf course away from the wet meadow habitat, utilize setbacks to partially mitigate impact of raptor foraging habitat losses, and provide for wildlife corridors. The report also recommends fuelbreaks be developed and cautioned that channelization of the Amargosa Creek should be avoided. While some were included in "Mitigation Measures", some were not. For example, why wasn't the relocation of the golf course included even though it was recommended in the study?

Funding for the mitigation and monitoring plan was not identified.

PARKS/OPEN SPACE

(Page 54) Special Parks (Lakeside)

EIR states there will be a "body contact water area" yet claims that lakes will be supplied

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with non-potable (raw or reclaimed) water. What is water source for "body contact" lake? If raw water is used, what is the purification facility/process? **jj**

Other "lakes" are actually dams/reservoirs and are not addressed as such. If the "lakes" are to be retained by the Developer as stated, how does this interface with County Waterworks - should not these "lakes" be annexed to the appropriate Waterworks District? Division of Dam Safety by law must be involved. What is the acre ft. of water? Where will the water come from? Is it potable? Treated on site? This needs to be expanded. What downstream flood protection is provided? Is the dam earthen or a concrete structure? Does it contain a spillway for upstream overflow? How close is this dam to identified faults? What is the overflow flood path? Where does the flood path terminate? What are peak cfs flood values? What agency will oversee construction and maintenance? What are maintenance Plans and cost after construction? What up-front guarantees will be put in place to assure this lakeside community will have water and not end up like Lake Los Angeles? - DRY. How will water quality be maintained? What measures will be employed to protect the residents from unwanted nuisance fowl and other wildlife intrusions? (i.e., mud hens, etc.) **kk**

According to John Fischer, a wildlife biologist for the state Department of Fish and Game, artificial lakes that provide grass and seeds can become a haven for birds migrating in the fall due largely in part to dwindling natural habitat. In Westlake Village, California, coots, ducks, herons and cormorants destroy neatly planted beds of grass, ravage public picnic areas and lawns and use the lake as a "bathroom" causing bacterial decay of the lake itself. It costs lakeside homeowners up to \$1,000 to maintain the lake. This community has mounted a "war" against the birds including the use of firecrackers, dogs, and guns. The EIR does not address this probable impact.

(Page 54) Summit Park (day-use campground)

Who will police and maintain? What fire suppression measures will be implemented (water, brush clearing, etc.)? **ll**

(Exhibit 5) Trails

This exhibit shows a backbone trail parallel to Elizabeth Lake Road yet it is not indicated in the AAD 90-1 engineering drawings for the AAD 90-1 project. Clarify discrepancy. **mm**

This exhibit also shows a strip of open space on the east side of Bouquet Canyon running north to south. This conflicts with the Ritter Ranch Specific Plan which states that SFE 2-acre gross lots are planned on this site and further state that these lots run east to west/center of roadway to center of roadway. This "strip of land cannot be both - residential property AND open space. Which is it? **nn**

(Page 56) Amargosa Park

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This wetland area is being represented as a detention basin, a passive wetland park, with equestrian and picnic areas, and adjacent to the golf course community. These multiple uses for this area doom the wetlands to failure. Mitigation measures are not sufficient nor practical. The prime focus must be to preserve wetlands, not provide recreation for the project. oo

WATER

The safe yield from the Antelope Valley aquifer per the latest USGS study is 40,700 acre ft. per year. According to the Antelope Valley United Water Purveyors April '91 "Water Resource Study", in 1990 101,219 acre ft. of water was withdrawn from the aquifer resulting in a 60,510 acre ft. water overdraft. They also projected that in 1991 with the aqueduct water deliveries cut 80%, the groundwater would be pumped in excess of 145,590 acre ft. and would result in a 104,890 acre ft. of water overdraft. The Antelope Valley has been identified by the USGS and UNESCO as a land subsidence area from excessive groundwater pumping and is currently undergoing fissuring, sinkholes, drop in well level, and contamination.

The aqueduct import water delivery system is considered an interruptible water source and subject to interruption as occurred in 1991 when deliveries were cut by 80% due to drought. It is also subject to interruption from earthquake, upstream water availability, mechanical failure, pollution, etc.

The SWP entitlement to the Antelope Valley is 158,000 acre ft. of water annually, yet the maximum delivered to the Antelope Valley was 80,000 acre ft. in 1981 with an average of 50,000 acre ft. over the last few years. pp

According to the DWR, K. Mullnix, Deputy Director, the Antelope Valley total entitlement is "unachievable" and during good "wet" years, 70% of the entitlement (110,600 acre ft.) may be available. This is due to the incomplete aqueduct system, i.e., Peripheral Canal not built and limited upstream reservoir capacities which force the system to be dependent upon peak northern California rainfall periods.

As stated by Mr. Mullnix at the June 21, 1991 Board of Trade Water Symposium, the SWP system is interruptible, is incomplete, lacks capacity and should not be considered as a primary water source.

Where is the stable water source coming from for this project?

How much water will be used for grading, construction, dust control, soil wetting, etc.? Our calculations at the industry average of 55 gallons per cubic yard place this need at over 850 acre feet of water. What is the source of this water? What existing and proposed transmission system will be used? qq

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(Page 274) Back-up well site has 6000 GPM capacity yet the development needs 10,700 GPM maximum capacity. Where is the additional water coming from? rr

What are the annual water requirements for this development in acre feet? What is the source of the water?

- For the lakes in the Lakeside community?
 - Residential dwelling unit values per unit?
 - Commercial values per unit?
 - Golf course?
 - Landscaping?
 - Fuel modification?
 - Equestrian areas/trails?
 - Parks?
 - Schools?
 - Construction water?
 - Fire protection?
- ss

Do these requirements add up to the stated 7,000 acre feet of water required for Ritter Ranch?

FLOOD CONTROL/DRAINAGE

(Page 122) The Anaverde Creek flood potential is not addressed, yet 50% of the RPA project will contribute run-off to this basin. • What are the projected run-off volumes?

- What will the new CFS values be with this development, plus the proposed City Ranch?
 - Since the Anaverde Creek historically floods West Palmdale, what additional flood control facilities will be required? How will the project be financed?
- tt

(Page 121) Exhibit 12 does not show the Anaverde flood plain area. Is there a reason for this omission?

Data provided on in the Amargosa Creek Improvement Project EIR, Pages IV.C-1 through IV.C-6, conflicts with data published by the Army Corp of Engineers who conducted studies of Amargosa Creek in 1978 plus it conflicts with studies conducted by A. V. Engineering 1991. The differences are as follows:

- ACOE 1978 studies indicated 4900 cfs
 - L.A. County 1986 studies indicated 24,500 cfs
 - BSI 1990 studies indicated 21,500 cfs
 - A.V. Engineering studies indicated 8,000 cfs
- uu

In a conversations with Dr. Nasser (9/17/91), L. A. County hydrologist, Dr. Nasser

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indicated the 1986 L. A. County Study relied on only 2 ea. soil samples using the "infiltrimeter" technique and additional samples are necessary to determine the true cfs values of Amargosa Creek. The studies conducted by BSI were based upon the 1986 L. A. County report and as such are also questionable. A. V. Engineering based their study upon ACOE data from the 1978 report.

UU

After reviewing the ACOE report, including published Dept. of Interior Manuals to be used in conducting water flow analysis, the ACOE does not recommend the use of infiltrimeters as "they tend to give larger rates than those derived from watersheds".

In the AAD 90-1 (Page I-1) it states that "The City...initiated the "Phase II" project in order to avoid substantial costs of acquiring the Phase I "Sterling Basin" property..."

The total cost to purchase and develop the "Sterling Basin" property was estimated by a private consultant at approximately \$31,805.00 (A.V. Engineering, Inc., dated 1-7-91). KWC Engineers, Inc., 8-7-89, estimated \$34,950.00 including 20% inflation and district formation fees.

In contrast, the estimated cost figures for the proposed "less expensive" 90-1 project range as follows:

VV

- \$132,635,479 (KWC letter dated 11-26-90)
- \$219,600.00 (KWC letter dated 12-26-90) Flood control alone - \$55,000.00
- \$225 million (AAD 90-1 Informational Meeting Jan. 1990, C. Evans)
- \$225 million (statement by Janis Hamm at PAC meeting 1-12-91)

The 90-1 EIR fails to substantiate that it is more economical that the "Sterling Basin" flood control plan.

The need nor economic feasibility for this estimated \$300 million project has not been established nor has the funding been assured. In 1986, the voters in Lancaster, by a vote of 9 to 1, turned down a bond issue of \$12,000,000 for drainage structures within the city. Does the City of Palmdale believe that voters and taxpayers today will be any more willing to accept a plan which is estimated at \$300,000,000? Or is it the intention of the City to impose this plan merely to accommodate developers and override the desires of the citizens?

WV

Some residents along Elizabeth Lake Road (AAD 90-1) have listed their property for sale at a most realistic value, but have been unable to obtain a bonafide purchaser because of the impact of the proposed 90-1 as most buyers who aspire to purchase a home in Leona Valley, are repelled at the idea of a 100+ ft. roadway at their front door. There are no mitigation measures to compensate these homeowners for their inability to sell their homes due to 90-1. (Easton v. Strassburger)

XX

No dollar figure loss from the synthetic 50-year storm has been presented to justify this

YY

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project. Is this plan spending \$300 million to prevent \$40 million in potential damage costs? The cost/benefit ratio is critical to any proposal and should be identified and explored.

yy

Justification to retain/contain rainwater runoff from "flooding" the Antelope Valley floor has not been established. Accumulation of rainwater can be inconvenient to motorists and a nuisance to homeowners, but such rainwater is also critical to providing new material to aid in the surface rejuvenation process of the desert floor, especially critical to maintenance of Edward's dry lake beds. Locations of potential drainage/flood problems are quite arbitrary and dependent on a myriad of variables.

zz

Also, as proposed, 90-1 is not contingent to conceptual regional flood control programs for the entire Antelope Valley. It is an isolated plan to provide infrastructure to the Ritter Ranch project and various conceptual developments. The proposed creation of a single purpose Special District creates another layer of government where special interest jurisdictions are working separately to solve a multitudinal flood control problem in the Antelope Valley.

aaa

The Los Angeles County Board of Supervisors is on record supporting, in principle and concept, legislation which will create an Antelope Valley Flood Control and Water Conservation District. Flood control in the Amargosa Creek should be part of this regional flood control district (when formed) not an isolated concept.

(AAD 90-1) (Page I-1) "[AAD 90-1]...is necessary to serve existing...developments west of 20th Street West..."

There is no hard evidence in this EIR or related studies which indicate that AAD 90-1 is necessary to serve existing communities (developments), i.e., Leona Valley.

bbb

WATER QUALITY

(Page 125) What annual pollutant quantity is projected to run into the Amargosa Creek via road run-off, i.e., lawn fertilizers, oil, etc. from the portion of the RPA project within the Amargosa watershed?

ccc

What impact will these pollutants have upon the Amargosa Creek wetland ecosystem when added to the 4,800 lbs. of pollutants created by the Elizabeth Lake Road widening project, AAD 90-1?

What up front mitigation measure is planned (posting a bond?) to protect the quality of Leona Valley groundwater drinking supply? Since 50%± of the Leona Valley residents use well water for drinking, livestock, and agriculture, these pollutants will enter our groundwater in the wetlands directly. This impact is significant and needs to be addressed. Will the mitigation include a new water distribution system for the entire Leona Valley

ddd

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utilizing import water or ground water from the A.V. Aquifer at the expense of RPA?

What remedy is planned for Leona Valley property owners whose wells become polluted or run dry as a result of this project?

SEWAGE

(Page 281) States 2.1 MGD raw sewage will be created by the 7,200-unit Ritter Ranch, yet the AAD 90-1 EIR says the 3.5 MGD sewer trunk will support 22,000 D/U's. The math doesn't add up. Should the AAD 90-1 be sized for 6 MGD rate?

Utilities and sewers are to be installed on top of the San Andreas fault which is expected to rupture 15 feet in the next 30 years resulting in a break of the sewer line. How do you clean up 3.50 million gallons of sewage released into Amargosa Creek and which flows into Palmdale and pollutes the Antelope Valley groundwater. This disaster must be averted.

Also, are the County Sanitation Districts aware of this impending work and the subsequent residential development and will they be prepared to accept and treat the effluent?

SCHOOLS

DKS 2010 Forecast Buildout Land Use figures differ. The original DKS Study dated July 1990 lists 17,827 D/U for area buildout (Table 4-1). Table 20 in the EIR references the same original study yet lists D/U figures at 15,908. Student generation figures, therefore, do not jive. In addition, in Table 20, Santa Fe development with 425 D/U's is projected to generate 600 students, City Thrift with 135 D/U's is also projected to generate 600 students, and Valley Ranch with 1,137 D/U's to generate 600 students. Using DKS's generation formula, these figures do not jive - with each other nor with the original report. Why the discrepancy?

COMPATIBILITY WITH LEONA VALLEY

Exhibit 2 Vicinity Map - The map does not show the established community of Leona Valley, which is a very common omission throughout the document. It gives the reader the impression that there is no established community and, therefore, appears to be a direct attempt to minimize the impact of the project on Leona Valley. This misconception needs to be corrected throughout the document as it may be prejudicial to City agencies.

(Page 46) "In response to Staff concerns...revised...area adjacent to existing rural Leona Valley [by providing golf course and equestrian center].

While Leona Valley appreciates Staff's attempt at resolving any incompatibility issues, the

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community did not recommend golf course or equestrian center to produce compatibility results.

The community of Leona Valley is ag/rural in nature and the plan to introduce a golf course, club house, and high density surrounding units is not a means to accomplish "blending" or compatibility. 80 equestrian homes on Bouquet Canyon Rd. does not provide a serious "buffer" for the community. Since equestrian related homesites are not compatible with golf course residents, what buffering is provided to separate those two lifestyles? Also, during the public hearing process of the CFD for the Leona Valley, the community voted (98%) against a golf course in the Leona Valley citing incompatibility and assorted negative impacts. The golf course development (875 units) would far outnumber the equestrian units (80) and the integrity of the Leona Valley as a rural/ag/equestrian oriented valley would disappear.

For the sake of compatibility and to reduce biological impacts to the wetlands area in Leona Valley, the EIR recommends that the golf course be relocated to the southern plains (would serve efficiently in that site as a firebreak between the foothills and project). We agree.

(Page 49) Planning Area 2 (West Highlands)

In addition to the density being incompatible for this area (8,000 sq. ft. lots next to 2 acre to +5 acre lots), the location of the high school (abutting to the open space foothills) puts future students in grave danger from entrapment during a wildland fire/earthquake/flooding as only one roadway has been provided.

(Page 49) Planning Area 3 (Highlands)

Density in this hillside area far exceeds current policy for hillside management in an SEA area. The Hillside Ordinance should be adopted prior to approval of this density.

The decision to designate the Ritter Ranch at a maximum .68 D.U./Acre by the City Council did not take into consideration existing land use for the site and the adjoining unincorporated area of Leona Valley. This failure to acknowledge the incompatibility of such a designation indicates that the decision was made solely at the request of the developer since no attempt was made to gather factual data with which to base their decision. Leona Valley had requested a Compatibility Study be done of the Valley, City approved it, however, the plan ceased the moment the developer agreed to finance it. If a study had been done, it would have shown that 2.5 D/U AC is the most common in the Valley, and that .68 is not a compatible density in Planning Areas 1 and 2. Because Planning Areas 1 and 2 are at least 6 miles away from the City of Palmdale, are separated from the City by a natural boundary of ridgelines, and involve 23% of the agricultural/rural established community of Leona Valley, the Leona Valley Community Standards (or A.V. General Plan designations) should prevail.

(Per AVGP: "Sizable areas on both the east and west sides of the Valley are designated

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as "Agricultural Opportunity Areas:. These large contiguous areas [Ritter Ranch] are either currently in production or have a recent history of production. Although parts of these areas are in a decline, the Plan recognizes the validity of these areas; establishes agricultural activities as a "priority" land use over adjacent (and potentially incompatible) development, and discourages the premature conversion of these areas to other uses.") The community of Leona Valley still provides an active, productive agricultural lifestyle. Urbanization of Leona Valley is neither timely nor desired. What mitigation measures are proposed to address the loss of agricultural land in the project and adjacent areas? (Section 15000 et seq., Appendix G(y))

Note also, that Palmdale's Community Advisory Committee (committee to develop General Plan Update) recommended that density west of 50th St. W. should be 2.5 D.U./Acre - the designation endorsed by Leona Valley in their proposed Community Standards District (CSD).

The measures outlined do not provide compatibility with the Leona Valley established community. And because a Compatibility Study was never conducted in the Leona Valley, measurement of "compatibility" is ambiguous and opinion rather than based on fact.

(Page 58, Table 3) Proposed Commercial Areas

Planning Unit 1M allows for liquor store with approved CUP. The sale of liquor at this location is not desired or appropriate. Neither are "strip malls, 24-hour establishments or other listed uses which would significantly increase traffic, noise, lighting, vehicle emissions. The Plan also indicates that an office building will be constructed at this site (67,954 sq. ft.). This is not compatible with adjacent land uses. 1M should be changed from commercial to other more passive uses so as not to negatively impact the surrounding non-project residences and established businesses already in the commercial area of Leona Valley. There is no data to warrant or support expansion of commercial zoning along Elizabeth Lake Road. Commercial endeavors should be limited to within the Ritter Ranch project.

WASTE MANAGEMENT

The EIR does not sufficiently address measures to comply with the California Integrated Waste Management Act of 1989. Please address.

GRADING

Total excavation of +50 million cubic yards of dirt will have significant negative impacts to the area and have not been adequately mitigated (air quality, noise, soil erosion, drainage alteration, recharge capability, loss of native vegetation, loss of wildlife habitat and corridors). Also, impact and specific amounts to be taken from borrowing areas is not addressed.

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PHASING

Phasing of the project is contrary to the Antelope Valley General Plan which requires development in the Leona Valley to be of an "in-fill nature" as well as SCAG's policy preventing urban sprawl. Development of Leona Valley in the first phase is neither contiguous to the City of Palmdale, nor warranted. (Phase 1 in Leona Valley is MILES from the nearest development in Palmdale.) It is reasonable to question what standards were implemented when these phasing decisions were made and by whose authority.

GENERAL

(Page 181) "The Landscape Plan shall...address special edge treatments for adjacent offsite areas (including Leona Valley)... What are "special edge treatments" in the adjacent off-site Leona Valley? Cost? Description? Specific location? (Private property? County? Impact?)

(Pages 220 - 224) Projected year 2010 operating conditions. Without this project there will be little significance since the western developments listed would not occur (without the Ritter Ranch project fronting the AAD 90-1 infrastructure.) Without Ritter Ranch what is the more realistic year 2010 forecast?

Data in Tables 26 and 27 and Exhibit 21 do not jive. Clarify discrepancies. In general, these cumulative project locations appear to be guesstimates and as such are not valid factors for developing a cumulative perspective for the area. These charts should be re-evaluated and correct data supplied.

Exhibit 21 shows #21, Stable Area (north/west corner at approx 85th St. W). No TT with County can be found. What is source for identification of this project?

Exhibit 21 shows #10, Lane Ranch project at L & 60th St. West in Quartz Hill, yet does not identify Lane's proposed development west of Godde Hill Road. Why?

Exhibit 21 shows #23, Lazy T Ranch with a proposed development of 10 D/U, yet the EIR and the RR Specific Plan do not indicate these dwelling units. Clarify.

Exhibit 21 and Table 26 show #16, a Bouquet Canyon project area with a proposed development of 81 units yet no TT is on record with the County.

Response No. 20

Leona Valley Town Council

Ms. Mary Ann Floyd

- 20a. The project is not expected to result in a significant portion of the traffic at these locations, particularly for areas west and southwest of the project, as identified in Table 22 (see Response No. 23).
- 20b. Ambient noise readings are not required by the California Environmental Quality Act. Table 13 indicates the results of a preliminary noise survey, which was intended to verify and supplement noise model projections.
- 20c. Refer to Response Nos. 6 and 20h - 20u.
- 20d. Refer to Response Nos. 20j and 20k.
- 20e. Mitigation Measure No. 54 recommends a City-wide cumulative noise mitigation program. Cumulative mitigation for Elizabeth Lake Road could also be implemented through the proposed Amargosa Creek Improvement Project Assessment District 90-1, which will include provision of noise walls where necessary. For impacted areas not suitable for noise walls, structural upgrades could be provided (such as double-paned windows and/or mechanical ventilation, although in older homes this also may not be effective due to possible poor noise attenuation features of some older structures).
- 20f. Noise walls, if any, would be located adjacent to the few homes within approximately 150 to 235 feet of the future centerline, to achieve 60 dBA CNEL, or closer if 65 dBA CNEL is acceptable. Other noise walls along Elizabeth Lake Road would be constructed in conjunction with new development where needed to provide adequate noise attenuation (the impacted areas for Ritter Ranch are shown on Exhibit 14). These walls are typically six to eight foot block walls, although other acoustically effective materials may be used. Only Planning Units 1K and 1L are anticipated to require noise walls along a short stretch of Elizabeth Lake Road. This is acknowledged to represent an aesthetic impact, although it is not considered significant in light of the relatively small area affected (primarily affecting motorists along a short stretch of Elizabeth Lake Road). It should be noted that noise walls may not be necessary should future detailed development plans demonstrate an adequate setback from roadway noise.
- 20g. The raised median will be interrupted by left-turn pockets where appropriate, as determined by the City Engineer.
- 20h. Refer to Response Nos. 27 (regional traffic) and 15b. The trip length figure is a SCAG regional average, including both long-distance work-to-home commute trips and shorter home-to-shopping and work-to-shopping trips, as well as trips internal to Ritter Ranch (between onsite commercial/office areas, home-to-park, home-to-school and home-to-work trips). Nonetheless, the Draft EIR identifies that, even with these shorter trips, the long-distance commutes associated with the Antelope Valley may result in ultimately higher average trip lengths overall (page 105 of the Draft EIR).

It should be noted that a "trip" represents the journey from one destination to another, not an entire "round trip" (i.e., going from home to the gas station to work, then from work to the market to school to home is actually five "trips").

- 20i. The description is consistent with County and City plans designating Elizabeth Lake Road as a major east-west arterial, as well as its function as the primary connector of Leona Valley and Santa Clarita with the Antelope Valley.
- 20j. The project traffic study included the proposed commercial areas (these areas will actually reduce offsite traffic impacts of the project by providing closer retail, office and other commercial land uses that the residents would otherwise have to drive into town for).
- 20k. This issue is noted on pages 210 and 211 of the Draft EIR, and is accounted for in Mitigation Measure No. ~~73~~ 74. It should also be noted that much of the construction traffic will occur onsite or within the immediate vicinity, as the project will be designed to achieve "balanced" grading to the extent possible.
- 20l. Refer to Response Nos. 20h, 20j, and 20k. The EIR notes that, even with implementing the recommended mitigation measures, the project will result in significant air quality impacts.
- 20m. The Ritter Ranch EIR data is based on more recent information, as noted in the footnote on page 204 of the Draft EIR.
- 20n. The difference in the two figures is due to different analysis years. The 17,827 figure is for "buildout", while the 15,908 figure is for "Year 2010".
- 20o. The project traffic study utilized the Citywide traffic model for trip distribution. The EIR identifies that the Elizabeth Lake Road segment between Godde Hill Road and Bouquet Canyon Road will require further improvement beyond that proposed in the Amargosa Creek Improvement Project Assessment District 90-1 (see page 226 of the Draft EIR and Mitigation Measure No. 75). The comment refers to the capacity of the roadways, not the volume of traffic anticipated to use them. Bouquet Canyon Road is expected to operate at LOS A at General Plan buildout according to the model. If the commentor does not agree with the capacity assumed for this roadway, the capacity could be reduced by 40% before reaching LOS D (large margin of error).
- 20p. Refer to Mitigation Measure No. 114.
- 20q. The City has established Engineering design standards which specify that street slopes should not exceed 6% on arterial roadways and 10% on local streets. These slopes can only be exceeded with approval of the City Engineer. In that case, the design standards specify that slopes may be increased to 8% on arterial roadways and 14% on local streets. The impact of construction of access into Planning Area 3 has been considered.

- 20r. The phasing of offsite roadways will be determined by the phasing of the project and the focused traffic studies required with each development application. The applicant has indicated that the phasing suggested in the Specific Plan is subject to change. In the event that the adjacent development does not proceed, the developer of the Ritter Ranch project would have to provide sufficient improvements to the circulation system as may be necessary to accommodate traffic generated from that development. This would include improvement of offsite facilities determined necessary by the City's Traffic Engineer.
- 20s. The City of Palmdale has not established "rural" street standards. The street cross-sections shown in the Specific Plan demonstrate the types of streets which will be constructed in the project area.
- 20t. The exhibit displays the lane configurations assumed by the model only. With respect to the intersection of Tierra Subida and Palmdale Boulevard, the volume expressed in the comment is for one link of the intersection only. According to figure 3-3 of the SWA study, the other links of the intersection of Tierra Subida and Palmdale Boulevard will carry 55,200 ADT, 51,800 ADT, and 48,000 ADT. There is no intersection of Ranch Center Drive and Bridge Road. However, the same figure shows that 16,600 ADT will be carried on one link of the roadway east of the intersection of Ranch Center Drive and Elizabeth Lake Road and west of the intersection of Bridge Road and Elizabeth Lake Road. These intersections will both carry considerably less volumes of traffic (totalling up the other links) than the intersection of Tierra Subida and Palmdale Boulevard. Therefore, fewer lanes were assumed by the model.
- 20u. Refer to Response No. 27.
- 20v. Please refer to Comment No. 15a, which indicates SCAG concurrence that the project has an adequate jobs/housing balance (it actually exceeds SCAG recommendations).
- 20w. The study in question is based on CALINE4, a widely accepted model for calculating carbon monoxide concentrations along roadways. The City is not aware of any conflicting statements in the EIR in this regard.
- 20x. As stated, the possible increased VMT due to a possibly higher average triplength cannot be estimated, due to unknown future employment and travel behavior of project residents (see Response No. 20h.).
- 20y. The EIR indicates a requirement for an Erosion Control Plan (Mitigation Measure Nos. 8 and 36). In addition, the Amargosa Creek flood control basins and culverts will receive periodic maintenance to clear debris.
- 20z. The 65 acres is an estimate of existing wetland vegetation, while the 57 acres (presumably cited from the Amargosa Creek Improvement Project EIR) is an estimate of wetland area impacted by Assessment District 90-1 (although this estimate is being updated by using the 1987 ACOE Wetlands Manual).

- 20aa. There have been numerous successful wetland revegetation projects in southern California. The potential for vegetation loss in the initial years is acknowledged, and is the primary reason that the resource agencies (Army Corps of Engineers and California Department of Fish and Game) typically require higher than a 1:1 wetland replacement ratio as well as a wetland area monitoring and maintenance program. Any recreation areas near or within the wetlands would be passive, and subject to approval by the City of Palmdale and the resource agencies as part of the permit/agreement conditions.
- 20bb. Comment is acknowledged. Prior to securing the required permits/agreements for removal of the wetlands, the applicant will be required to conduct an alternatives analysis. It should be noted that the wetland impacts in the golf course area would be due to the proposed Amargosa Creek Improvement Project and not Ritter Ranch.
- 20cc. The Reduced Scale Alternative, through clustering, could avoid the Amargosa Creek wetland area. However, as noted above, this area is proposed for a regional detention basin and would be impacted by the proposed Amargosa Creek Improvement Project (grading for Basin "B"). Also refer to Response No. 20hh.
- 20dd. Air quality impacts would be negligible (see page 109 of the Draft EIR). Water quality issues are discussed on pages 125 - 126, and addressed in Mitigation Measure No. 36.
- 20ee. Comment has been acknowledged, and will be considered by the City during project deliberations. It should be noted that several biological resource studies have been conducted on the site, and that the Draft EIR does discuss several of the indicated species (including the Golden Eagle, Mojave Ground Squirrel, snakes and frogs). However, reports of local residents are not always dependable. In specific, the allegations made in the comment cannot be accepted without some credentials of the observer. It is not surprising that the Burrowing Owl, Western Pond Turtle, and other animals are alleged for the site. However, a more substantiated report by the Leona Valley Town Council might allow us to give a more specific response.

The observation of the Desert Tortoise is not uncommon since this animal is frequently released from captivity in desert areas outside the natural range or in former areas of the range. The presence of burrows would be required from an observation to ascertain that the animal was part of a native population.

Dr. Feldmeth's survey for the Mojave Ground Squirrel (included in "Ritter Ranch: A Predevelopment Biological Assessment", Ecological Research Services, October 1989) has resolved the issue of that animal's absence on the site, and is referenced in the PSBS Biological Resources Review in Appendix E of the Draft EIR.

The Golden Eagle activity on the north side of Sierra Pelona was noted in the PSBS report but at the time of the study, the nest site could not be located. U.S. Forest Service biologists indicated that the nest site was to the west. The precise location of these nest sites is a very confidential matter within the biological community due to the threat of the theft of the young.

The statement that the EIR must include a full representation of all species which inhabit the property throughout the year indicates a misunderstanding of the role of CEQA review. CEQA project proponents are obligated to provide an analysis of biological values and any impacts which may occur as a result of the proposed project. The purpose of the EIR is to identify biological impacts that may be significant in nature and allow decision makers to decide on the project based upon reasonably complete information concerning impacts of the project to biological resources as well as other features of the environment. There are many other plant and animal groups, such as the lichens, fungi, aquatic insects, and spiders, which are not usually addressed in environmental documents since there is no body of knowledge supporting a possibility of significant impact. Listing of animals is intended mainly to characterize the quality of the various habitats. Sensitive animals do receive their own consideration due to the jeopardized nature of their population conditions.

- 20ff. The EIR is considered to present the City with adequate information, and identifies that significant biological resource impacts would occur (also refer to Response No. 28).
- 20gg. Comment has been acknowledged, and will be considered by the City during project deliberations. Contrary to the statement, there are numerous examples of successful integration of wetland restoration areas into golf courses (including Dove Canyon Country Club, Coto de Caza, Tijeras Creek Country Club and others)¹. It should be clarified that the project site is not in a "conservancy" or part of a "natural park area", and that the area receives relatively little deer traffic, and larger deer populations exist to the south of the site (page 151 of the Draft EIR). The golf course design will be subject to review and approval of a Conditional Use Permit by the City of Palmdale. Wetland loss onsite will be subject to review and a permit/agreement from resource agencies. Also refer to Response No. 20hh.
- 20hh. This mitigation measure was suggested in the technical appendix, and was not included in the Draft EIR due to its conflicts with project objectives. In addition, the wetland loss in Amargosa Creek would be due primarily to the proposed Amargosa Creek Improvement Project.
- 20ii. Funding of the mitigation monitoring program for Ritter Ranch impacts will be provided by the applicant (mitigation and monitoring of Basin "B" wetland impacts would be funded through Assessment District 90-1).
- 20jj. The principal sources of water for the Lakeside Park Lake would be raw water from the California Aqueduct and storm water runoff during periods of rainfall. This water meets "body contact" water quality standards. Reclaimed wastewater would only be used to maintain the water level of the lake when the sphere of influence of the Palmdale Water Reclamation Plant included Ritter Ranch and no body contact or swimming in the lake will be allowed.

¹ "Use of Wetland in Golf Course Design", Robert Trent Jones, Jr., Golf Course Management, July, 1989, pp. 82-86.

- 20kk. The various "lakes" and water features depicted within the Specific Plan are designated to provide a variety of benefits. Aside from the obvious visual and aesthetic values, the features will combine the normal storage of irrigation water with additional capacity which will be used to control and regulate storm flows in accordance with City Drainage Guidelines.

The reservoir/basin facilities will be designed to meet all of the various City and County requirements regarding location, geologic stability, water quality, maintenance and operation.

Although not anticipated at this time, one or more basins could be expanded such that they would then fall within the jurisdiction of the State Division of Safety of Dams. If this did occur, the facility would be designed to also accommodate the Division's additional criteria.

The County Waterworks Department would become involved only if they decided to assume the ownership and maintenance of the irrigation supply system, of which the lake features act as storage reservoirs.

- 20ll. According to the Specific Plan, Summit Park will be maintained by the property owner of the site, which lies within the large open space area covering the Sierra Pelona Ridgeline. At this time, the future property owner of this area has not been determined. The Specific Plan indicates that the open space area would be either dedicated to the City of Palmdale, Los Angeles County, a State or Federal Agency, a Nature Conservancy or Trust, a college or University, or any other public or private entity which is acceptable to both the City of Palmdale and the present property owner. Maintenance of the site and fire prevention measures will be carried out by the future property owner; fire prevention may include creation of fuel modification zones and prohibitions on campfires and barbecues, among other things. Response in-Process.

- 20mm. The backbone trail along Elizabeth Lake Road will be along the proposed meandering offstreet path, as shown in the current design plans.

- 20nn. The proposed Amargosa Assessment District is to include both a separate bikeway and an equestrian trail. The actual improvements will be shown on the ultimate landscaping plans which should be prepared once the grading, drainage and street improvement plans have been approved by the City.

The strip along the east side of Bouquet Canyon Road indicates the approximate flood hazard area expected from Bouquet Creek. The area could be dedicated as open space or included as non-buildable areas within the proposed equestrian lots. In either case, the area would remain upgraded to avoid changing the existing flood conditions. Whether the property is public or private will hinge on future agreements between the City and Ritter Park Associates.

2000. The equestrian area is separate from the wetlands area. The picnic areas or other recreation within the wetlands will be passive, and subject to review and approval by the resource agencies (Army Corps of Engineers and California Department of Fish and Game).

20pp. This comment is supported by the "Los Angeles County Waterworks District Report on Existing and Projected Water Demands and Supply for the Antelope Valley," which is referred to hereinafter as the "LACWWD White Paper" and which was presented in early 1991. The LACWWD White Paper states that the natural recharge of the groundwater basin varies from a minimum of 40,900 acre-feet per year to a maximum of 76,000 acre-feet per year with an annual average recharge of 58,000 acre-feet per year. The recharge capability is substantiated by the U.S. Geological Survey "Water Resource of the Antelope Valley-East Kern Water Agency" study by R.M. Bloyd, Jr., dated 1967, and also the U.S. Geological Report 84-4081, dated 1987. The recharge figure of 40,700 acre-feet was obtained from the U.S. Geological Report 84-4081, dated 1987, which was used to calibrate the mathematical model, does not represent the actual recharge and should not be used as representing the average annual recharge.

The Antelope Valley United Water Purveyors Report has been reviewed by LACWWD. The LACWWD review of the water resource study of the Antelope Valley United Water Purveyors indicates that the purveyor's appraisal of the water resources, based on 1990 water conditions, is very misleading. LACWWD's primary concern with the report is that 1990 was not a typical or representative year to evaluate long-term source of supply from the Antelope Valley. Cutbacks in SWP water deliveries due to the fourth year of the State-wide drought resulted in limitations on municipal and industrial water and a 50-percent reduction in agricultural deliveries. These cutbacks will obviously result in additional groundwater pumping to meet demands. This is normal with a conjunctive surface water - groundwater use program where you have two or more sources of supply. To use data from the fourth year of a State-wide drought as the basis to address long-term water availability in the aquifer is inappropriate. The groundwater levels in the vicinity of the backup wells has risen in excess of 30 feet from 1970 to 1987.

The aqueduct is an interruptible water source, but an important supplemental supply of water to the Antelope Valley. As pointed out in the LACWWD White Paper, in October, 1988, Glen M. Reiter & Associates prepared a water supply analysis projecting State Water Project (SWP) deliveries from 1995 to 2010. This water delivery analysis utilizes 56 years of hydrological records of the Sacramento River Index (SRI). This index is the sum total of the principal Sacramento River Basins (Sacramento, Feather, Yuba and American). This type of analysis indicates that during the period from 1995 to 2010, delivery of the full entitlement may occur only 6 of 16 years. The probability of occurrence is 38 percent. However, at least 90% of the entitlement may be available 11 of 16 years and 80% of entitlement may be available 15 of the 16 years. Plus, the State is aggressively working to increase the delivery capability of the SWP. The pumping capacity at its Banks Pumping Station in the Delta is currently being expanded which will significantly increase the capability to pump water from the Delta into the headwords of the California Aqueduct. Two additional projects, the Kern Water Bank and Los Banos Grandes

Reservoir, are two projects which will significantly increase the reliability of the SWP. The Kern Water Bank which is located west of Bakersfield will provide the capability to store excess SWP water underground for use during drought periods. This project is scheduled to be completed by 1995. The proposed Los Banos Grandes Reservoir which is located south of the SWP's San Luis Reservoir will provide additional surface storage capacity to increase the reliability of the SWP. The environmental document for this project has been drafted and is currently in the public review process. Construction of this project is scheduled to be completed by the Year 2000.

The stable water source for the Ritter Ranch development will be the interconnection to the Waterworks District Nos. 4 and 34 water systems which conjunctively use SWP delivered through the Antelope Valley - East Kern Water Agency (AVEK) and local groundwater. The two 2,000 gpm groundwater wells being constructed as part of the Ritter Ranch water system improvements are essential to the District's conjunctive use plans and will serve only as a backup source of water in the event of an interruption of the AVEK SWP supply. From 1970 to 1987, based on USGS monitored water well levels, the groundwater levels have risen 30 feet in the area of the valley where the wells are to be placed.

Based on the above, there is an adequate and stable supply of water to support the Ritter Ranch Development. This water supply meets the policy of the Districts and AVEK of balanced and conjunctive use of groundwater and surface water.

- 20qq. Grading water will be provided from the 3,000 gpm untreated AVEK water supply available from the California Aqueduct. As each phase is graded, a certain amount of water will be required to irrigate this area. Therefore, with each graded phase, less of this supply will be available for grading. In order to avoid a supply problem, grading in later phases has been tentatively scheduled during the late fall, winter, and early spring months when irrigation water demand is minimal.

Grading water requirements are based on estimated grading quantities and time frames. Water use is estimated at an average of 35 gallons per cubic yard for the entire project based on industry standards. As with irrigation water, grading water will be provided from a permanent untreated water system which will extend from an existing California Aqueduct Turnout south of Elizabeth Lake Road in Palmdale.

- 20rr. During normal periods the project will take water from AVEK as the primary supply. During abnormal or emergency periods the project will use backup wells. The backup wells supply 3844 gpm. The backup well supply was reduced in capacity due to a change in water service policy by LACWWD No. 34. This District presently uses in excess of 98% of its water supply from AVEK during normal operation of the water system. It was anticipated that if the water supply from AVEK was reduced in the future, it would be due to a major drought or an act of nature. In this event, LACWWD No. 34 felt that its customers should be limited in their water use to 600 gallons per day from the present average maximum daily use of 1,670 gallons per day per customer. If the 10,700 gpm domestic use estimate is multiplied by the ratio of these two numbers, the resulting level of emergency offsite groundwater will be 3,844 gpm. The project is designed with water conservation in mind. The residents of the

project will have an adequate supply of water at the level of conservation during abnormal or drought periods.

The original 6,000 gpm well capacity was derived by rounding up the required well supply of 3,844 gpm to 4,000 gpm and then adding 2,000 gpm for a standby well capacity at this site. Later it was determined by LACWWD No. 34 that this 2,000 gpm should not be included in the total because this capacity is not actually needed for the demands at Ritter Ranch.

- 20ss. The Environmental Impact Report states that the estimated water demand for Ritter Ranch is 7,000 acre-feet (a.c.) based on a maximum day demand of 10,700 gpm. The following is a list of land use, water requirements and source of supply:

<u>Land Use</u>	<u>Water Use</u>	<u>Sources</u>
Lakeside Community acre of lake	6.0 a.f./yr./ (Untreated)	SWP, AVEK, LACWWD, No. 34
Domestic Supply* (Treated)	8,630 a.f./yr.	SWP, AVEK, LACWWD, No. 34
Irrigation Supply* (Untreated)	3,396 a.f./yr.	SWP, AVEK, LACWWD, No. 34
Fire Protection fire	0.5 - 2.0 a.f./ (Treated)	SWP, AVEK, LACWWD, No. 34

* Domestic supply includes residential, commercial, schools, residential landscaping, and landscaping of parks and greenbelt areas above elevations of 3,140. Irrigation supply includes parks and greenbelt areas below an elevation of 3,140, fuel modification, and equestrian areas. With water conservation proposed for the project the actual amount of water in acre feet will approximate 7,000 acre-feet per year.

Construction water supply demands will vary from month to month and year to year. In the year of 1999, the highest annual grading water demand is estimated to occur. This is equivalent to 1,034 acre-feet.

The golf course is estimated to require 664 acre-feet per year.

- 20tt. Anaverde Creek is discussed on page 122 of the Draft EIR, with facilities conceptually shown on Exhibit 12. Project runoff will be required to maintain or reduce existing storm flows. The Anaverde Creek floodplain is shown on Exhibit 11.

- 20uu. Comment has been acknowledged, and will be considered by the City during project deliberations (this comment pertains mostly to the Amargosa Creek Improvement Project EIR). However, use of the City Master Plan of Drainage is considered appropriate for the project.

- 20vv. This is an Amargosa Creek Improvement Project Assessment District 90-1 issue.

- 20ww. This is an Amargosa Creek Improvement Project Assessment District 90-1 issue.
- 20xx. This is an Amargosa Creek Improvement Project Assessment District 90-1 issue.
- 20yy. This is an Amargosa Creek Improvement Project Assessment District 90-1 issue.
- 20zz. This is an Amargosa Creek Improvement Project Assessment District 90-1 issue.
- 20aaa. This is an Amargosa Creek Improvement Project Assessment District 90-1 issue.
- 20bbb. This is an Amargosa Creek Improvement Project Assessment District 90-1 issue.
- 20ccc. It would be speculative to estimate the quantity of pollutants entering Amargosa Creek from the project, due to the complex variables involved (type and nature of automobiles, fertilizer use, car washing, etc.). This issue is discussed on pages 125 and 126 of the Draft EIR, with wetland impacts of pollutants discussed on pages 156 and 157.
- 20ddd. There are no significant water quality impacts expected after implementing mitigation measures.
- 20eee. The estimated average daily sewage flow from Ritter Ranch is 2.1 MGD, while the estimated average daily flow from Assessment District 90-1 is 7.0 MGD.
- 20fff. This is an Amargosa Creek Improvement Project Assessment District 90-1 issue. As noted in the EIR for that project, the risk of upset from a natural disaster is an unavoidable adverse impact. All infrastructure will be designed to current standards to minimize the potential for damage and resultant loss of service or health/safety hazards.
- 20ggg. The County Sanitation District has been contacted, and will issue a "will serve letter" prior to the applicant receiving building permits for a given development area.
- 20hhh. Please refer to Response No. 20n regarding DKS dwelling unit projections. The cumulative student information will be revised to reflect current generation rates of the respective school districts.
- 20iii. The established rural nature of Leona Valley is discussed throughout the EIR, particularly on pages 186-190.
- 20jjj. The equestrian community (Planning Units 1A and 1B) is separate from the golf course community. The equestrian facility would be located immediately adjacent to an existing equestrian facility. As discussed in the EIR, the 2-acre minimum equestrian lots are considered an adequate buffer zone between the remainder of Ritter Ranch and Leona Valley.
- 20kkk. Refer to Response No. 20hh.

20lll. Comment has been acknowledged, and will be considered by the City during project deliberations. Adequate access and fire protection/prevention measures will be required, as noted in the EIR.

20mmm. The overall project density would be 0.68 dwelling units per acre, which is greater than the overall density of 0.40 units per acre permitted under the Antelope Valley Areawide Plan, based on information in Comment No. 17 (this is the reason the project requires a General Plan Amendment).

The project appears to fall within the Ritter Ridge Significant Ecological Area (SEA 56) according to the Antelope Valley Areawide General Plan adopted by Los Angeles County. According to the document, this area was assigned an SEA status because of its mix of stands of Joshua trees and California Junipers, and its use as wildlife habitat. The Los Angeles County Plan, however, indicates that certain uses may be developed within SEAs. In practice, certain development has been approved within the SEA zones with the approval of a conditional use permit by Los Angeles County. However, upon annexation into the City of Palmdale, the Los Angeles County General Plan designations will be superseded by the City's General Plan, and the SEA designation created by the County will no longer apply to the site. The impact of the Ritter Ranch development on the biological resources of the Ritter Ridge site has been analyzed in the Draft EIR. This document indicates that development of the project area will have a significant adverse impact on the biological resources currently present. ~~The project is not within an SEA (Sensitive Ecological Area) as defined by the County of Los Angeles.~~

20nnn. Comment has been acknowledged, and will be considered by the City during project deliberations. The project proposes 0.68 units/acre, as compared to the Leona Valley recommended density of 0.40 units/acre (2.5 acres/dwelling unit). This is acknowledged as a land use and General Plan inconsistency, which is why the project requires a General Plan Amendment. The Ritter Ranch site is not in active cultivation, and grazing activities are being phased out. The loss of agricultural land is not considered significant, as stated on page 188 of the Draft EIR.

20ooo. Comment has been acknowledged, and will be considered by the City during project deliberations.

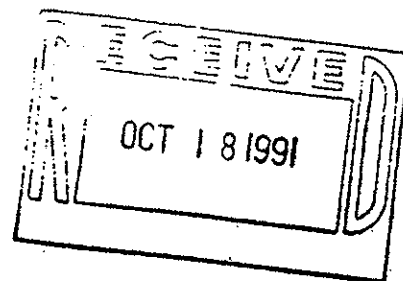
20ppp. This issue is addressed on page 285 of the Draft EIR. Specific measures cannot be stated, as the City has yet to adopt their Source Reduction and Recycling Element to implement AB 939 (refer to Mitigation Measure No. 122).

20qqq. The issues noted in this comment are addressed in the Draft EIR. Specific amounts of material to be removed from each Borrow Area (for the Amargosa Creek Improvement Project) is not known, as it will depend on the nature and suitability of material within each Borrow Area. The impacts are not expected to significantly differ from the project construction impacts addressed throughout the document, as Borrow Area excavation and transporting will primarily involve grading operations onsite and transporting to nearby areas requiring fill along Elizabeth Lake Road. This issue is discussed further in the Amargosa Creek Improvement Project EIR.

- 20rrr. Specific phasing for the project has yet to be determined. The Phasing Plan indicated in the Draft EIR was with respect to geographic areas, not construction sequence. Comment has been acknowledged, and will be considered by the City during project deliberations.
- 20sss. "Edge treatments" is a term commonly used to describe a distinct change in landscape character to visually separate two areas, also accomplished by use of setbacks, different lot sizes and/or configurations, special lighting considerations, building height limits and architectural materials. These specific measures are detailed in the Specific Plan, and will be further defined in the Landscape Plan (edge treatments will be funded by the applicant).
- 20ttt. This is a speculative assumption, as the currently proposed Ritter Ranch project is not essential for other southwest Palmdale projects to proceed. The EIR has assumed a worst-case analysis for year 2010 by including all presently proposed developments (even though some may be withdrawn, denied or downscaled), which is consistent with the California Environmental Quality Act.
- 20uuu. This information was developed by DKS in conjunction with City staff and review of available County files, at the time of study preparation (July, 1990). The names correspond to Traffic Analysis Zones, and do not necessarily reflect a specific development proposal. Furthermore, the dwelling unit assignments do not necessarily reflect pending proposals or entitlements, but rather reflect anticipated development potential based on current trends in southwest Palmdale and the City's Draft General Plan Land Use Element.

**CROSBY
MEAD
BENTON
& ASSOCIATES**

Engineers • Planners • Surveyors



October 14, 1991

City of Palmdale
38306 9th Street East
Palmdale, California 93550

Attention: Ms. Laurie Lile

Reference: **DRAFT ENVIRONMENTAL IMPACT REPORT**
RITTER RANCH SPECIFIC PLAN

Dear Ms. Lile:

On behalf of CR Energy, who is a major landholder in the Valley Ranch project, we would like to submit comments on the subject EIR.

On page 223, the third paragraph states that without Ritter Ranch the operating level on Avenue S west of Tierra Subida in the year 2010 "would be LOS A and additional lanes would not be required". However, the next sentence states that "heavy volumes" on this link are mainly due to traffic from Valley Ranch. The term "heavy volumes" in this sentence is misleading when viewed in the context of the previous sentence. The report includes traffic from the Valley Ranch project and City Ranch in its data for the year 2010 (see Table 20) and should clearly state that the massive Ritter Ranch and City Ranch projects are the primary reasons that Avenue S and related streets would require significant upgrading. a

At the bottom of page 223, the report states that capacity deficiencies exist on a short segment of Avenue S east of Valley Ranch. According to Table 22 on page 218, Avenue S between Tierra Subida and the freeway will operate at LOS A with or without the Ritter project. According to page 223, the segment west of Tierra Subida will operate at LOS A without the project. Where are the capacity deficiencies? b

On page 226, the EIR suggested as an alternative that Tierra Subida be upgraded to a major arterial to provide access to Valley Ranch. The data in the EIR indicates that this is unnecessary if Ritter Ranch and City Ranch properly mitigate their traffic impact. c

Thank you for the opportunity to comment on this EIR.

Very truly yours,

CROSBY MEAD BENTON & ASSOCIATES

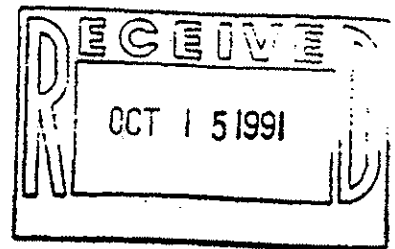
Mel Roop
Mel Roop

MR:tmd

Response No. 21

Crosby, Mead, Benton & Associates
Mr. Mel Roop

- 21a. As stated on page 222 of the Draft EIR, the Ritter Ranch project would contribute only 14% of the traffic at this location. At the time that the City Traffic Model was run, the Valley Ranch project was expected to include 1,137 single-family dwelling units. If this is not the case, the statement on page 223 of the Draft EIR will be modified. However, if the Valley Ranch project is to include 1,137 or more dwelling units, the project is anticipated to significantly increase the amount of traffic on the segment of Avenue S just west of Tierra Subida. Additionally, development of the Valley Ranch project will require its own environmental review and documentation, and traffic impacts will be assessed at this time.
- 21b. The LOS A refers to the entire stretch of roadway. The "capacity deficiencies" as noted in the Draft EIR, are located on a short segment east of Valley Ranch.
- 21c. The comment will be considered by the City during project deliberations.



J. N. 91-164
October 14, 1991

TO: Laurie Lile, Planning Department
City of Palmdale

FROM: L. C. Bevington *LC Bevington*

SUBJECT: Ritter Ranch Specific Plan.

The following are my comments on the Ritter Ranch Specific Plan:

<u>Page</u>	<u>Comments</u>	
Exec. Summary pg. 3, mitigation Pg. 30 # 125, Project description, pg. 59	The last paragraphs on each page and mitigation # 125 state "finance maintenance". It should read "finance construction and possible future maintenance".	a
Mitigation pg. 16, 4th left paragraph Pg. 275, 1st paragraph Pg. 279, 1st paragraph	These pages includes reference to "Water Reclamation Plant". It is my understanding that this facility has been dropped.	b
Mitigation, pg.20, # 75	"including the roadway west of Godde Hill Road". A. D. 90-1 which will improve Elizabeth Lake Road, excludes any work on Elizabeth Lake Road, west of Godde Hill Road.	c
Pg. 278, 1st paragraph	It is my understanding that the trunk sewer between 10th Street West and Division Street has been turned over to Los Angeles County Sanitation District No. 20. If so, the point of connection should be changed to read "10th Street West, south of Avenue P".	d

J. N. 91-164
October 14, 1991
Page 2

Pg. 281, 1st paragraph "to the farthest northwest corner of the Ritter Ranch development in the vicinity of Bouquet Canyon Road." The current sewer line construction as proposed in A. D. 90-1, ends 4,700 feet east of Godde Hill Road and 8,800 feet east of Bouquet Canyon Road.

Pg. 300

There appear to be three errors:

1st paragraph
2nd paragraph
3rd paragraph

Table 25 should be Table 26
Phae should read Phase
Table 25 should be Table 26

I would be happy to review these comments with you.

91164\RRSPCPLN

Response No. 22

KWC Engineers, Inc.

Mr. L.C. Bevington

- 22a. The EIR text will be revised accordingly.
- 22b. This potential facility was addressed as a worst-case condition. Its deletion does not affect the EIR (any specific mitigation measures would then not be applied).
- 22c. The measure includes roads outside AD 90-1 due to cumulative impacts.
- 22d. The text will be revised accordingly.
- 22e. The text will be revised accordingly.
- 22f. The text will be revised accordingly.

COMMENT NO. 23

City of
Santa Clarita

23920 Valencia Blvd.
Suite 300
City of Santa Clarita
California 91355

Phone
(805) 259-2489
Fax
(805) 259-8125



October 15, 1991

Ms. Laurie Lile, Associate Planner
City of Palmdale
Planning Department
38306 9th Street East
Palmdale, California 93550

RE: Draft Environmental Impact Report (DEIR)/Ritter Ranch Specific Plan: Proposed 7200-unit residential and commercial project, located on a 10,625 acre parcel southeast of the intersection of Elizabeth Lake and Bouquet Canyon Roads.

Dear Ms. Lile:

We have reviewed the DEIR and Specific Plan prepared for the project described above for its potential impact to the City of Santa Clarita. The proposal appears to present numerous environmental impacts. Of concern to the City is the extent of the individual and cumulative traffic analyses with respect to several roads that enter the City and its planning area from the north, notably Bouquet Canyon Road, Sierra Highway, and the Antelope Valley Freeway. This concern was specifically identified in our response to the Notice of Preparation (March 5, 1990) with the request that the scope of the traffic study be extended to these areas. As noted in that letter, we believe that such a study would be very useful to both our jurisdictions. We have the following comments:

1. Traffic Distribution Diagram

The DEIR and Appendices did not include a traffic distribution diagram, which would provide information regarding the percentages of traffic moving on feeder arterials to and from the project site. If such a diagram had been supplied, we believe that it would indicate whether project traffic would effect arterials within the Santa Clarita Valley.

2. Bouquet Canyon Road

We are particularly concerned regarding traffic on Bouquet Canyon Road. This highway is likely to carry substantial numbers of vehicle trips in both morning and evening peak hours, particularly to existing and recently approved employment centers.

The DEIR appears somewhat contradictory in that it acknowledges on page 199 that Bouquet Canyon Road is used by through traffic between Santa Clarita and the Antelope Valley, but later states that traffic on Bouquet Canyon Road would not increase as a result of the project (p. 218, Table 22). Mitigation measures to Bouquet Canyon Road are implied, (p. 229), but neither the mitigation measures nor the impacts which would be addressed by them are identified.

3. Sierra Highway and Antelope Valley Freeways

Impacts to both Sierra Highway and the Antelope Valley Freeway have been apparently dismissed in light of existing heavy traffic volumes on these two major highways, and consequently no mitigation measures are proposed.

We believe that the traffic impacts of this project to both the regional system and the City of Santa Clarita may be both individually and cumulatively significant beyond what has been evaluated in the DEIR, particularly when proposed projects in the immediate vicinity (approximately 15,900 single family and 4,000 multi-family units, including the proposed Ritter Ranch) are considered.

We request that a supplemental traffic study be prepared prior to the Final EIR to address the following:

1. Traffic Distribution Diagram as in "1" above.
2. Evaluation of impacts to Bouquet Canyon Road, with particular emphasis on these intersections:
 - a. Bouquet Canyon and Copperhill
 - b. Bouquet Canyon and Newhall Ranch Road
 - c. Bouquet Canyon and Valencia Blvd./Soledad Canyon Road
3. Evaluation of impacts to Sierra Highway, with emphasis on this intersection:
 - a. Sierra Highway and Soledad Canyon Road
4. Evaluation of impacts to the Antelope Valley Freeway, with emphasis on this intersection:
 - a. Antelope Valley Freeway and Shadow Pines Blvd.

Thank you for the opportunity to comment on this major project. If you have any questions regarding our comments, or would like to meet to discuss these issues, please contact me or Christine Kudiya, Assistant Planner, of my staff, at (805) 255-4330.

Sincerely,



Lynn M. Harris
Deputy City Manager/
Community Development

LMH:CMK:626

Response No. 23

City of Santa Clarita

Ms. Lynn M. Harris

- 23a. Appendix H of the Draft EIR includes the Traffic Study prepared by DKS Associates for the project. This study includes several exhibits that show traffic volumes on area roadways which provide the information requested.
- 23b. The volume/capacity ratios on Bouquet Canyon Road are presently at acceptable levels, and according to the City's Traffic Model, the roadway will continue to function at a V/C of .63 and LOS A (Fig. 4-2 of the SWA study) at General Plan buildout. Therefore, the model demonstrates that the roadway could accommodate even more traffic before it reaches a level of congestion. The comment also references "existing and approved employment centers." If these facilities are in the City of Santa Clarita, then mitigation should have been required of these facilities to reduce trip generation, as well.
- 23c. These regional issues are addressed in City-wide traffic modelling as part of the Draft General Plan Circulation Element (revised July, 1991).
- 23d. Comment has been acknowledged and will be considered by the Planning Commission and City Council during project deliberations.
- 23e. A comment was received by the City of Santa Clarita which stated that additional traffic studies should be performed to analyze the impact of the project on circulation in the vicinity of Santa Clarita. Specifically, the comment referenced intersections on Bouquet Canyon Road (at Copperhead) Sierra Highway (at Soledad Canyon Road), and the Antelope Valley Freeway (at Shadow Pines Blvd.). When the original traffic study was performed for the project, these intersections were not included because they were so distant from the project site. Staff still holds the opinion that these intersections are at such a distance from the project that the quantification of any impact would be speculative. Staff does, however, acknowledge that the traffic generated by the Ritter Ranch project will contribute to a cumulative impact to regional roadways, including the Antelope Valley Freeway, Sierra Highway, and to a lesser degree, Bouquet Canyon Road.

From the existing information provided by the traffic model, staff can make some assumptions regarding the traffic impacts to these roadways. According to the model, traffic volumes on Bouquet Canyon Road would change very little with implementation of the project. Table 22 of the Draft EIR predicts that volumes with the project would be approximately 5,800 trips per day; without the project, traffic volumes would be 5,700 trips per day. The increase of 100 trips per day represents less than a 2% increase in traffic volumes. In addition, the model predicts that, in the vicinity of the project area, this roadway will operate at Level of Service A, and would have additional capacity to allow even higher volumes before it would experience significant adverse impacts. Therefore, staff suggests that the impacts to the remote intersections located in Santa Clarita would in all likelihood, not be significant.

The impacts to Sierra Highway near Santa Clarita were not analyzed in the traffic model for the project. Since this roadway is east of the Antelope Valley Freeway, the traffic model predicted that traffic travelling southward would utilize the freeway rather than Sierra Highway.

The Antelope Valley Freeway is expected to carry traffic volumes of 160,000 vehicles per day in the vicinity of Crown Valley Road in the year 2010, according to the traffic studies prepared for the City's General Plan Update. The traffic study prepared for the project does not directly assign trips to the Antelope Valley Freeway. It does, however, provide predicted volumes on Palmdale Boulevard and Avenue S at the freeway interchange. Therefore, staff assumes that a certain proportion of these trips will utilize the freeway. The report indicates that 48,000 trips per day will occur on Palmdale Boulevard in the vicinity of the freeway, both with and without the project. In addition, the report indicates that 34,800 trips per day will affect the Avenue S interchange upon implementation of the project, and 28,100 trips per day would impact this intersection without the project. The difference which could be attributed to the project is 6,700 trips per day. If all the trips (6,700) directly attributable to the project were to utilize the freeway, and travel to the vicinity of Crown Valley Road, the direct impact from the project would be approximately four (4%) percent.

The project will also contribute to the cumulative impacts anticipated to occur through growth in the Antelope Valley, to the Antelope Valley Freeway. This impact may be significant and the City Council may elect to adopt a statement of overriding considerations to address cumulative impacts to circulation.

In light of the discussion provided above, staff feels that the traffic analysis prepared for the project is adequate to determine whether the EIR may be certified. It should be noted that future development applications will require focused traffic surveys to provide an additional level of environmental analysis. Response in Process.

COMMENT NO. 24

OCT 1 1991

October 15th, 1991

David D. Earle
3335 E. Ave. Q-6
Palmdale, CA 93550

City of Palmdale
Planning Department
38306 9th Street East
Palmdale, CA 93550

Dear Sir/Madam:

I am responding to the City's request for comment on the report entitled "Phase II Archaeology at Ritter Ranch, Tentative Parcel Map No. 22833, Palmdale, Ca." prepared by LSA Associates of Irvine, Ca. and dated June 14th, 1991.

As a member of the Environmental Review Committee and Executive Board member of the Antelope Valley Archaeological Society, and as President of the West Antelope Valley Historical Society, I am continually involved in reviewing Cultural Resource Management documents which provide documentation of and recommendations regarding management of prehistoric and historic sites in the Antelope Valley. I have published on late prehistoric and protohistoric settlement in the Antelope Valley, and am familiar with current archaeological research problems and practices in the valley.

The Phase II report submitted by LSA Associates represents a conscientious effort to address cultural resource management issues within the Ritter ranch project area, this under difficult circumstances. This is more than can be said for many such projects undertaken in the valley in recent years. However, there are a number of aspects of the documentation procedures and mitigation recommendations contained in the report which do not appear entirely adequate. It appears that both unfamiliarity with local desert-margin research questions and methods, and/or an unwillingness of the project developers to adequately fund Phase II and further mitigation work, may have given rise to these problems.

First of all, it is unfortunate that LSA Associates were unable to avail themselves of a 1990 publication of the Antelope Valley Archaeological Society, its Occasional Paper No. 2, which provided further information on regional research design in the valley, including several articles bearing on the project area. The foothill and rift zone area in the southwestern Antelope Valley, as this and other recent publications point out, is an extremely sensitive and important area in the study of Antelope Valley prehistory.

It is a matter of great concern that given the sensitivity of the area, 4 inch diameter augur holes were relied upon so extensively to document subsurface components of prehistoric sites. At only four sites were 1x1 mt. units excavated, and at only one were more than two deployed. This approach is generally not considered adequate in Antelope Valley, unlike in coastal areas of California, where the presence of shell debris and other densely deposited midden components makes the use of auger hole testing a more

adequate means of identifying distribution of subsurface site components. Even as a test strategy- a means of identifying subsurface components- it is not considered adequate in the context of valley archaeology. As a means of mitigational documenting of entire sites, as recommended in the case of a number of sites in the project area, it is particularly inadequate.

It is also distressing that a number of sites of special archaeological significance within the context of regional research contexts- the petroglyph (cupule) sites and the hunting blind site- are treated as having no further research potential. These sites are of very great importance in dealing with research questions bearing on religious activities and hunting activities in the valley. About both of these issues considerable controversies have developed. It is critical that sites able to yield additional information on hunting and hunting technologies in the valley be preserved for further study. The concentration of cupule sites in the project area is also particularly significant, and the associated bedrock mortars and other milling features with cupule rocks at these sites would suggest to me that the sites are not as ephemeral as the report suggests. The mitigation recommendations for these sites have been viewed within the archaeological society as inadequate, to say the least.

It might be added that the documentation of historic sites within the project area also does not always satisfy current standards for such documentation in the valley. The fact that historic structures were in several cases not researched so as to identify date of construction is an indication of the problems which exist in this area.

To summarize, I would recommend that the City require additional Phase II testing of sites which are to be mitigated through data recovery. I would also request that it additionally require effective preservation of high significance cupule and hunting blind sites. Given the archaeological importance of the area and the sites, it is important that these areas be preserved as part of our prehistoric heritage. I know that the Antelope Valley Archaeological Society and its membership will be interested in working with the City to develop specific strategies to allow better site documentation and site preservation in the project area.

Sincerely,


David D. Earle

Response No. 24
Mr. David D. Earle

24a. Please refer to Response No. 14a.

State of California

The Resources Agen

Memorandum

Date : September 16, 1991

To : 1. Project Coordinator
Resources Agency
2. City of Palmdale
38306 9th Street East
Palmdale, California 93550
Attn: Laurie Lile

From : Department of Water Resources

Subject: SCH. 90010124, DRAFT EIR, RITTER RANCH SPECIFIC PLAN-RESIDENTIAL
DEVELOPMENT, CITY OF PALMDALE, LOS ANGELES COUNTY

RECEIVED
SEP 15 1991
STATE
CLEARINGHOUSE

The Division of Operations and Maintenance has received and reviewed the above-referenced document and forwards the following comments to you:

SCH. 90010124 details a 73-acre commercial, and 7200 residential unit community development on 10,625 acres, located in the vicinity of Elizabeth Lake Road and Bouquet Canyon Road in the City of Palmdale. The proposed development is situated about one mile southwest of the California Aqueduct within the Pelona Sierra Mountain Range.

This same proposal was submitted to the Department under the S.B. 2161 guidelines designated as DWR No. 19-PA-61, Ritter Ridge Specific Plan. Our August 20, 1991, response regarding the Ritter Ridge Specific Plan was as follows:

"Although the Ritter Ranch Development does not encroach upon Department of Water Resources Right of Way, the possibility of the development increasing water flows across Ritter Siphon during heavy precipitation is likely. The Sierra Pelona Ridge is the principal watershed in this area with Anaverde Creek draining directly towards the California Aqueduct.

Adequate drainage design should be exercised by the developer, emphasizing the need to protect not only the California Aqueduct but the surrounding lands."

If you need further information, please contact David Wrightsman at (916) 653-1073.

Keith C. Barnett

Keith Barrett, Chief
Division of Operations
and Maintenance
508

Response No. 25

Department of Water Resources

Mr. Keith Barrett

- 25a. This project, as all others in the area, will be held in compliance with both City and County Drainage guidelines which normally prohibit the direct release of any increase in flow rates. The Ritter Ranch Specific Plan is designed to allow both local and regional flow reduction as required by the City Engineer. Since the current design is able to actually reduce the runoff from both the Amargosa and Anaverde drainage areas, downstream facilities including the California Aqueduct and surrounding areas will remain protected if not benefitted by the project.

As noted on page 119 of the Draft EIR, the project will be required to maintain or reduce existing flows through use of onsite flood control basins and other flood control facilities, which will be reviewed for adequacy by the City Engineer (see Mitigation Measure Nos. 31, 32, 33 and 35). As noted on page 122 of the Draft EIR, City staff are presently developing a regional solution to the Anaverde Creek flood hazard, including the Ritter Ranch and City Ranch projects.

State of California

Environmental Protection Agency

Memorandum

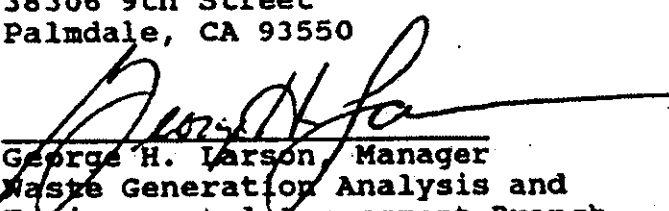
10/15

To : Tom Loftus
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

Date: September 30, 1991

Laurie Lile
City of Palmdale
38306 9th Street
Palmdale, CA 93550



From : 
George H. Larson, Manager
Waste Generation Analysis and
Environmental Assessment Branch
California Integrated Waste Management Board

Subject: SCH #90010124. Draft Environmental Impact Report (DEIR) for the Ritter Ranch Specific Plan and Associated Annexation Areas, City of Palmdale, Los Angeles County.

Project Description: The project will encompass 10,625 acres and consist of the following: 7200 residential units, 73 acres of commercial area, school sites, a golf course, roadways, easements, and open space. An annexation area of 449 acres is also proposed.

California Integrated Waste Management Board (CIWMB) staff have reviewed the DEIR for the document cited above and offer the following comments:

In consideration of the California Environmental Quality Act (CEQA) section 15205(c) CIWMB staff will focus comments on specific issues involving waste generation and disposal.

In order to help decision-makers 1) identify potential impacts from construction and demolition projects, 2) determine whether any such impacts are significant, and 3) ascertain whether significant impacts can be mitigated to a level of insignificance, CIWMB staff request that the Final Environmental Impact Report (FEIR) include the following information:

- A.) Identification of the anticipated types and quantities of solid wastes that will be generated and would require landfilling during the construction phases.

- B.) Identification of the anticipated amounts of sewage sludge to be generated upon implementation of the plan which would require landfilling. | b
- C.) Identification of the potential impacts of these quantities of waste, as well as solid waste generation at project completion, on remaining landfill capacities and the calculated site-life of the target landfill. | c
- D.) Identification of any past or present areas of unpermitted landfilling and/or dumping at the Ritter Ranch Property site and how these areas will be mitigated. | d

New residential and commercial developments increase the amount of waste being sent to landfills. To minimize this amount, the following measures should be considered in the FEIR, in addition to the mitigation measures (numbers 118 to 122, p. 286) included in the DEIR:

- A.) Implementation of a curbside recycling program in the residential development areas. | e
- B.) The use of insulation and other products made of recycled materials in the construction of development structures. | f
- C.) The inclusion of storage areas for recyclables into the design of the residential units. | g
- D.) Suggest to residents and businesses that they utilize products made from recycled materials to the maximum extent possible. | h

Due to the possibility of additional contamination of recyclables and increased waste separation problems for compacted household waste, residential trash compactors (mitigation measure #120) may not be compatible with the efficient operation of the Materials Recovery Facility (MRF) at the Antelope Valley Landfill. | i

Thank you for the opportunity to review and comment on the DEIR for the Ritter Ranch Specific Plan. If you have any questions regarding these comments, please contact John Sitts at (916) 327-9387.

Response No. 26

California Integrated Waste Management Board

Mr. George H. Larson

- 26a. The project will generate typical construction-related solid waste, although the quantity or type is not considered significant. These wastes would include vegetation from initial clearing activity, debris from construction workers, miscellaneous debris/refuse presently located onsite, and debris associated with actual construction of the proposed buildings and other facilities (wood, tiles, nails, dryboard, empty paint cans, etc.). All recyclable or compostable construction debris is anticipated to be processed by the City of Palmdale's proposed Materials Recovery Facility and Green Waste Composting Facility, planned as part of compliance with Assembly Bill 939 through the City's proposed Source Reduction and Recycling Element (SRRE, scheduled for adoption by early 1992).
- 26b. The Specific Plan allows for construction of an onsite wastewater reclamation plant, although the applicant is not pursuing this at this time. Were it constructed, this plant may generate sludge as a byproduct of sewage processing, requiring landfilling or composting. However, composting of sewage sludge poses a problem due to the concentration of heavy metals that may occur in the final compost product. According to the Palmdale Draft SRRE, the EPA will release regulations in 1992 for the use of sewage sludge compost products, and it is recommended that the City avoid the use of sewage sludge for composting until these regulations are released.
- 26c. Solid waste generated by construction and potentially by the wastewater reclamation plant would not significantly impact the Antelope Valley Landfill capacity. Project solid waste generation will be significant, as stated in the Draft EIR, although the proposed expansion of the Antelope Valley Landfill and Lancaster Landfill, in combination with source reduction and recycling measures proposed by the City, will substantially reduce this impact.
- 26d. This issue is discussed within Section IV.H of the Draft EIR.
- 26e. This measure is proposed for implementation by the City as part of their proposed Source Reduction and Recycling Element.
- 26f. This measure will be considered by the City during project deliberations.
- 26g. This measure will be considered by the City during project deliberations.
- 26h. This measure will be considered by the City during project deliberations.
- 26i. This measure may be deleted by the City during project deliberations, in consideration of desired compatibility with the goals and programs set forth in the City's proposed Source Reduction and Recycling Element.

Memorandum

Mr. Tom Loftus
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, CA 95814

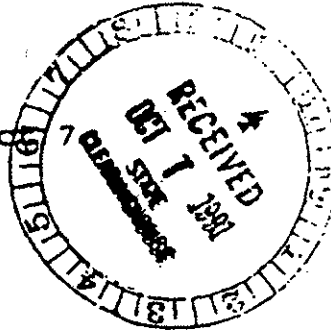
Date

September 30, 1991

File No.:

IGR/CEQA
DEIR; City of Palmdale
S. of Elizabeth Lake
Rd./W. of 30th St. W.
Ritter Ranch
Specific Plan
7,200DU/10,625acres
Vic. LA-14-58.17

Wilford Melton - District 7
DEPARTMENT OF TRANSPORTATION



Project Review Comments

SCH# 90010124

Caltrans has reviewed the above-referenced document. Based on the information received, we have the following comments:

We are concerned about the effects this project may have on both the mainline and the on/off ramps of State Route 14 (Antelope Valley Freeway), as well as on State Route 138 (Palmdale Boulevard).

The proposed development will impact State Route 14 (Antelope Valley Freeway) especially the on/off ramps at Avenue S and at Palmdale Blvd. A traffic analysis should be prepared calculating impacts to the capacity limitations of the Antelope Valley Freeway, as well as to Palmdale Blvd. This analysis should include year 2010 cumulative impacts (proposed developments at City Ranch, Santa Fe Hills, Rancho Vista, etc.) and cumulative plus project impacts to these State transportation facilities.

An analysis of and recommendations for capacity improvements on the mainline Antelope Valley Freeway should be conducted. This analysis should be based on a 24 hour as well as A.M. and P.M. peak traffic. Deficiencies in capacity limitations is determined by delays when the number of vehicles exceed 2,000 vehicles per hour per lane (LOS F). The Antelope Valley Freeway is a rural principal arterial serving inter-regional transportation with a minimum acceptable level of service of LOS E.

We suggest that the City of Palmdale impose developer agreements or mitigation impact fees to be used for required transportation related improvements. We believe that the assessment fees for this purposed should be extended to cover mainline freeway deficiencies created by the additional traffic generated by this project. (freeway bridge and on/off ramp widening, dedication of park-and-ride lots, etc.).

Mr. Tom Loftus
September 30, 1991
page Two

Any transportation related mitigation measures that involve State right-of-way and cost exceeds \$250,000 will require a Project Studies Report. Any measures that cost less than \$250,000 will require a Caltrans Encroachment Permit.

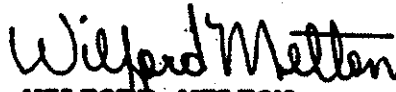
Detailed discussions relating to implementation responsibilities, scheduling considerations, financing, and monitoring of mitigation measures, including those for the mainline freeway, should also be addressed.

The submitted document does not discuss Transportation Demand Management (TDM) and Transportation System Management (TSM) measures to reduce the project traffic impact. These programs include, but are not limited to:

- * park-and-ride lot with staging areas
- * ridesharing program/Transportation Management Assoc. (TMA)
- * restricted HOV on-ramps

The proposed development lies close to the adopted Route 138 corridor alignment. Although there are no plans at the present time to construct a freeway, the many development proposals in this area may generate enough trips to warrant a freeway in the future. It is suggested that the developer contact the City of Palmdale or the County of Los Angeles with respect to the future alignment of the Route 138 Freeway west of the Antelope Valley Freeway (SR-14).

If you have any questions regarding this response, please call me at (213) 897-4429.


WILFORD MELTON
IGR/CEQA Coordinator
Advance Planning Branch

cc: Laurie Lile, City of Palmdale
38306 9th Street East, Palmdale, CA 93550

Response No. 27

Department of Transportation-District 07

Mr. Wilford Melton

- 27a. The project traffic study (as well as subsequent updated analyses) included analysis of the Antelope Valley Freeway ramps at Avenue S and Palmdale Boulevard (see page 222 of the Draft EIR). Detailed analysis of freeway capacities is not within the scope of this project, as this is an inter-City and inter-County issue better addressed by CalTrans and SCAG. The Southwest Planning Area Study (prepared by DKS Associates, July 1990), the Citywide transportation model, and the Draft General Plan Circulation Element (revised July 1991) include estimates of cumulative freeway traffic through the assumed land use buildout for the City.
- 27b. The City will be imposing traffic impact fees and/or may negotiate a Development Agreement with the applicant for local offsite roadway improvements (see Mitigation Measure Nos. ~~72 and 75 and 76~~). Assessments for freeway improvements are generally not imposed at the local level, as these funds are typically derived from federal and state revenue sources, including recently passed ballot propositions.
- 27c. This is incorrect. ~~Mitigation Measure No. 72 requires submittal of a Transportation Demand Management Plan, and Mitigation~~ Measure No. 27 requires applicant contribution toward a Park & Ride facility.
- 27d. The project site is relatively distant from the preferred Highway 138 alignment along Avenue P-8. In addition, as no alignments have been proposed through Leona Valley, and it is considered unlikely to construct a freeway in this location, it is not considered necessary to allow for this in the planning process. Recent cumulative traffic studies for this area indicate that traffic demands can be accommodated by widening Elizabeth Lake Road to four lanes from Bridge Road to west of Godde Hill Road, and six lanes between 10th Street West and SR-14.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
FISH AND WILDLIFE ENHANCEMENT
SOUTHERN CALIFORNIA FIELD STATION
Ventura Office
2140 Eastman Avenue, Suite 100
Ventura, California 93003

October 16, 1991

Laurie Lile
City of Palmdale Planning Department
38306 9th Street East
Palmdale, California 93550

Subject: Draft Environmental Impact Report for the Ritter Ranch
Specific Plan (SCH# 90010124) (1-6-92-TA-V15)

Dear Ms. Lile:

The Fish and Wildlife Service (Service) has reviewed the referenced document, which describes the annexation by the City of Palmdale (City) and the development of a specific plan for 10,625 acres in the southwestern area of Antelope Valley, Los Angeles County, California. An additional 449 acres would also be annexed through approval of this document, although the draft environmental impact report does not address specific plans for this acreage. In total, the area discussed in the draft environmental impact report covers 11,074 acres.

The development proposed in the specific plan, which would be implemented over 20 years, occurs primarily in the northern, eastern, and central portions of the project area. Proposed features include single-family estates and homes, multi-family residential areas, community parks, a golf course, schools, roads, and commercial centers. Approximately 3,024 acres are slated for development, with 7,906 acres designated as open space. Parks and the golf course are considered as open space in the draft environmental impact report.

The primary concern of the Service is the conservation of public fish and wildlife resources and their habitats. Our mandates require that we provide comments on any public notice issued for a federal permit or licence affecting the nation's waters, in particular, U.S. Army Corps of Engineers (Corps) permits pursuant to section 404 of the Clean Water Act and section 10 of the River and Harbor Act of 1899. To gain a better understanding of proposed projects, and to alert agencies to our concerns early in the planning process, we often review and provide comments on draft environmental impact reports. Since many of the activities reviewed in the draft environmental impact report may require a permit from the Corps, we recommend that your agency coordinate

with the Corps and the Service prior to submittal of any applications for a federal permit. The following comments are prepared as technical assistance to your agency.

The draft environmental impact report refers the reader to other documents (a.g., the Amargosa Creek Improvement project draft environmental impact report) for evaluation of specific impacts and postpones many of the mitigation measures to development of plans for future approval by the City's Director of Planning. The Service believes that this approach does not reveal the full extent of the impacts of the proposed action on the wildlife resources of the area and makes the effectiveness of the potential mitigation measures difficult to assess. Failure to evaluate potential impacts and mitigations in a comprehensive manner will most likely be detrimental to those aspects of the specific plan that endeavor to preserve wildlife habitat. As a brief example, the proposed drainage system could have large effects on the viability of the area's wetlands; however, only general concepts are presented on whether channels would be lined or naturally vegetated and how far development would be set back from the water courses. Without legally binding easements and commitments from the project applicant, the Service believes that the proposed incremental impact assessment and mitigation will result in greater adverse effects on wildlife than are described in the draft environmental impact report.

We also believe that the draft environmental impact report fails to sufficiently address the cumulative and indirect impacts on wildlife of the greatly increased human presence in the valley. Development of Ritter Ranch would result in increased lighting, noise, and use of surrounding natural areas by residents and pets. These impacts may preclude wildlife from using the planned wildlife corridors and much of the natural open space near developed areas.

We note that the draft environmental impact report frequently refers to future activities related to preserving wildlife values in the project area. The applicant should retain at least one qualified biologist on a full-time basis to direct mitigation efforts during development, monitor the success of these measures, and conduct ongoing maintenance and monitoring of those aspects of the project related to wildlife habitat. The Service believes that this could ensure continuity for wildlife protection during the implementation of a project that is slated for build-out in 20 years.

The draft environmental impact report would benefit from additional editing and elimination of typographical errors, such as repeated and incomplete sentences. The draft environmental impact report also refers to places by name, such as the wildlife corridor crossings, without depiction of these areas on a map. A

Laurie Lile

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more complete set of maps would facilitate review of the document.

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The Service offers the following specific comments for your consideration:

Open Space and Recreation, page 53. The draft environmental impact report notes that several permitted uses could occur within designated natural open space, including playgrounds, ballfields, community facilities, agricultural uses, temporary carnivals, country clubs, amphitheaters, golf courses, and a waste water treatment plant. This information is contained in a single footnote. Elsewhere, the draft environmental impact report makes frequent reference to the approximately 7,600 acres that would remain as natural open space, which are to serve as mitigation for the impacts of the proposed action on wildlife. The Service believes that this presentation is misleading. All of the uses noted above would be detrimental to the maintenance of high quality wildlife habitat. To remedy this situation, the Service recommends that a maximum acreage figure be presented for the other uses that could occur in natural open space. The remaining area should then be identified as that portion of the project area that would be set aside for wildlife. The distinction between open space for wildlife and for active recreational or community services uses should remain clear throughout the draft environmental impact report.

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Proposed Drainage Facilities, pages 122 to 129. This section provides only a vague program for controlling on-site flood flows. Riparian corridors, washes, and canyons within arid areas often support a greater abundance and diversity of wildlife than other types of habitat. The general descriptions of the potential actions do not allow the reader to evaluate the resources that would be affected by the proposed facilities or even the manner in which flood control would be achieved. The draft environmental impact report should present a quantification of the riparian corridors, washes, and canyons that may be affected, describe how flood control would be achieved in these areas, and provide commitments to maintain them in natural conditions or compensate off-site for the loss of wildlife values.

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The Service is also concerned that, under the proposed drainage plan, the golf course would drain into a wetland mitigation area. This would subject the plants and animals of that area to inflows of fertilizers and various types of pesticides, which could compromise the habitat quality of the wetland. We recommend that the golf course drain into a water reclamation plant, with treated water being made available to the wetland. As an alternative method, we recommend that the golf course be designed to incorporate primarily native vegetation, without the use of extensive grassy areas. Such a course would reduce the use of

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fertilizers and pesticides and the amounts of water needed for maintenance, and would provide greater value to more species of wildlife than extensive lawns.

Biological Resources, pages 130 to 160. The map of the project's area's plant communities (page 142) that is presented in the draft environmental impact report is difficult to read because several of the community types appear as the same color. We recommend that additional maps be developed which clearly depict the habitat types occurring at Ritter Ranch.

The section on sensitive vegetation (page 143) notes that three rare plants occur within the project area. However, the draft environmental impact report states only that the Pringle's yampah (*Perideridia pringlei*) occurs in an area proposed for open space. The draft environmental impact report does not discuss potential impacts to, or mitigation measures for, the other two species. While none of these species seems to be in imminent danger of extinction, the Great Valley gumplant (*Grindelia camporum* var. *parviflora*) is found primarily around the San Francisco Bay area of California. The occurrence of the Great Valley gumplant at Ritter Ranch seems to be a Los Angeles County record and may therefore be of regional significance. As an aside, it would be useful to reviewers to provide the scientific and common names of plant species in both the list of species and in the text, at least the first time each species is discussed.

The draft environmental impact report states that the small Joshua tree woodland in the northeastern portion of the project area would be protected either by *in situ* preservation or acquisition of equivalent off-site habitat (page 159). We note that the community concept plan (page 50) identifies the general vicinity where the woodland is located as an equestrian center. The wildlife values associated with the Joshua tree woodland would almost certainly be compromised by an equestrian center in such close proximity. Potential impacts could include trampling of soils, browsing of native vegetation, and introduction of nutrients and exotic plants by way of horse manure. Additionally, brown-headed cowbirds, which are nest parasites of other birds, could become established in the area because of the stables. Finally, the small size of the woodland may limit its value as a habitat, unless it is contiguous with other protected native habitats off-site. The Service believes that these potential impacts to the woodland should be clearly addressed. If the impacts are not fully mitigatable on-site, acquisition, protection, and enhancement of a viable Joshua tree woodland, located in an area designated for preservation of desert woodlands, should be made a requirement of project approval.

The revegetation plan should specifically require the use of plants that are native to the project area. These species should also be used as the "low combustible plant material" noted on

Laurie Lile

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page 158 (#45). All native plant material to be used within the project area, included seed and cuttings, should be collected from on-site sources. The Service believes that inclusion of at least a conceptual revegetation and monitoring plan, with minimum success criteria, in the draft environmental impact report would have been appropriate.

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The applicant should commit to removal of tamarisk from water courses within the project area on at least an annual basis for the life of the project. The Service's experience with the removal of tamarisk is that limiting the commitment to two years would be inadequate, particularly as construction activities provide invasive exotic species with opportunities to become established.

We note that several recommendations discussed in the appendix on biological resources are not mentioned in the body of the draft environmental impact report. Briefly, these points are:

1. Relocation of the golf course to avoid wet meadow habitat. The Service believes that the applicant should attempt to avoid the placement of fill materials in waters of the United States and wetlands. We will provide more detailed comments on Clean Water Act issues during our review of the public notices required for section 404 permits.

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2. Removal of grazing. The draft environmental impact report should discuss this issue fully, including time frames for the removal of all livestock from open areas, if removal would not be immediate, and the means by which wildlife habitat can be protected from trespass grazing by animals based on adjacent lands.

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3. Wetland mitigation banking. The Service believes that this concept may be appropriate for the proposed project, which would cover approximately 3,000 acres and be developed over 20 years. This issue should be discussed in depth with the applicant and the Corps.

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4. Transfer of open space to the U.S. Forest Service. This arrangement could provide an additional degree of wildlife management within the open areas. However, issues such as mineral withdrawals, grazing allotments, and recreational use on the transferred lands should be fully discussed prior to transferral. The applicant may wish to investigate transferring the land through a private conservation agency which could establish appropriate easements on the lands to ensure that wildlife management would always be the primary objective.

p

In conclusion, the Service believes that the draft environmental impact report does not adequately describe the potential impacts of the proposed action and does not contain sufficient

Laurie Lile

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information on the mitigation measures that could be implemented to offset these impacts. We recommend that a revised draft environmental impact report that addresses these concerns be resubmitted for public review. | q

The Service appreciates the opportunity to participate in your planning process. If you have any questions, please contact Ray Bransfield of my staff at (805) 644-1766.

Sincerely,



Steven M. Chambers
Office Supervisor

Response No. 28

U.S. Fish and Wildlife Service

Mr. Steven M. Chambers

- 28a. This comment will be taken into consideration by the City during project deliberations. It should be noted that the requested information is not possible at this time due to the conceptual stage in project planning (grading plans do not exist, therefore specific analysis and mitigation of development impacts along the various drainages is not possible). It is necessary to refer the reader to the Amargosa Creek Improvement Project EIR, as this is a separate regional public works project. CEQA encourages the citation and incorporation by reference of various documents relating to the project in order to reduce the length and redundancy of environmental documents (CEQA Guidelines Sections 15148 and 15150). Documents cited or incorporated by reference into the EIR shall be made available to the public for review.
- 28b. This comment will be considered by the City during project deliberations. The Draft EIR (page 154) discusses this issue. The text will be expanded to include the noted concerns. The Draft EIR (page 160) identifies that the project will have an unavoidable significant impact upon biological resources. The recommended development setbacks are provided in an effort to further minimize potential wildlife disruption.
- 28c. This request will be considered by the City for during project deliberations, for possible incorporation into Mitigation Measure No. 40.
- 28d. Wildlife corridors are shown on Exhibit 13.
- 28e. This request will be considered by the City during project deliberations, for possible modification of the Specific Plan to include a minimum acreage of natural open space. It should be noted that the EIR based its analysis on known potential intrusive uses within the "natural open space" areas, including trails, Specialty Parks and fuelbreaks (see page 153).
- 28f. The Specific Plan allows for a range of flood control facilities. It is not known at this time whether or not various portions of onsite drainages will be channelized (the EIR assumed that most or all would). As noted on page 154 and Mitigation Measure No. 40, the applicant will be required to process a 404 Permit from the U.S. Army Corps of Engineers and a 1603 Agreement from the California Department of Fish and Game.
- 28g. This suggestion will be considered by the City during project deliberations. This issue is discussed on pages 125 - 126 of the Draft EIR, with Mitigation Measure No. 36 specifically addressing the issue.
- 28h. The Final EIR will include an improved version of Exhibit 13.
- 28i. As stated on page 143 of the Draft EIR, the Piersons Morning-glory has widespread distribution in the project area (as shown on Exhibit 13, it also is in an area proposed

for open space). The Great Valley Gum Plant occurs onsite in a small disturbed population, whose loss is not considered significant.

- 28j. This is incorrect. The 15-acre commercial/equestrian area (Planning Area 5A) is located northeast of the much larger (139 acres) Juniper Park. A large portion of the existing Joshua Tree Juniper Woodland would be impacted by the commercial/equestrian area (outside the proposed park boundaries). The compatibility issues raised in the comment will be considered by the City during project deliberations. The EIR text will be amended to include these concerns.
- 28k. This comment will be considered by the City during project deliberations. The requirement of native vegetation is included in Mitigation Measure No. 58.
- 28l. This comment will be considered by the City during project deliberations.
- 28m. Refer to Response No. 20hh.
- 28n. As noted on page 184 of the Draft EIR, the site is currently utilized for limited cattle grazing only, and this activity is being phased out already. Limited cattle grazing may continue in early phases of project development. Grazing onsite, if any, occurs under lease agreements with the landowner, and is an existing condition not subject to this EIR process.
- 28o. This comment will be considered by the City during project deliberations.
- 28p. This comment will be considered by the City during project deliberations. Ownership and maintenance responsibilities of the common open space areas will be resolved as part of the Specific Plan approval process.
- 28q. It is not considered necessary to recirculate the Draft EIR, as only relatively minor additions/corrections have been made to the original Draft EIR text.

COMMENT NO. 29

ANTELOPE VALLEY ARCHAEOLOGICAL SOCIETY, INC.
Post Office 4514 Lancaster, Ca. 93539

RECEIVED

OCT 21 1991

CITY OF PALMDALE

October 17 1991

City of Palmdale
708 East Palmdale Boulevard
Palmdale, CA. 93550

ATTN: Ms. Sonja Wilson

Dear Ms. Wilson

Thank you and your department for the opportunity to review and comment on:

The Cultural Resources Report of the 10,625 Acres, described as the Ritter Ranch, in the city of Palmdale, Los Angeles County, California.

In my assessment of the two reports that I was given the opportunity to read, I found information that said the same thing when it reported what was found and then gave conflicting conclusions. This gave me the idea that I was missing some of the material that was being used to come to those conclusions, ie, a technical report, or something to that effect.

I read into the report, assumptions that seem to show that the persons that were producing the report made conclusions based on very little information, stating in their own words that very little material was found or that they had done only a minimum of work at a lot of the sites at the ranch. The lack of archaeological detail either done by the reporters or which may be available on this area does not excuse us to abandon our responsibility to protect the archaeological and historical resources which may be present on this site.

It is beyond my comprehension that statements such as "Very little is known about the Tataviam culture", and "lack of archaeological detail in the region extends into recent times", does not show us a flag on the possibility on what this unique site could reveal. This area should be given a better opportunity to produce those results.

I am sure we are all aware of the potential impact to the cultural resources present at the Ritter Ranch that will occur once work is begun. These impacts should be mitigated before that work is done and not as work proceeds. Any disturbance of artifacts means it is already destroyed, once they are moved there is no replacement of its exact position which is a great part in the scientific process. Too many people feel as long as it is collected and winds up at a place where it can be studied the job is done, unfortunately this is not the case and should be stressed to the utmost.

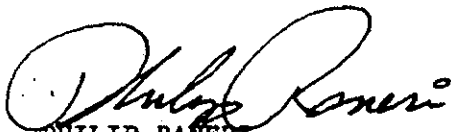
Other hazards await the cultural resources of the area beyond the large machines use to build and that is man himself. Once the area is developed the foot traffic and off the road folks am sure will do their level best to take up any slack construction didnt catch.

I dont presume to know the model that should be used to insure that all archaeological and historical resources are protected.

I can say without hesitation that I will expect that all efforts will be made to mitigate this project before any work is started rather than the suggestion to do the mitigation as work is in progress.

I would also voice my objection to the removal of rock art as a mitigation method.

I would again like to thank you for the opportunity to review this EIR it contains alot of information and was put together well. I hope my comments will help you in your decision making. I am also hoping that every effort will be made to protect all the archaeological and historical resources on the Ritter Ranch despite the pressure to move ahead before the end of the year.



PHILIP RANERI
Member, Enviromental Review Committee

Response No. 29

Antelope Valley Archaeological Society, Inc.
Mr. Philip Raneri

29a. Please refer to Response No. 14a.



**South Coast
AIR QUALITY MANAGEMENT DISTRICT**

21865 E. Copley Drive, Diamond Bar, CA 91765-4182 (714) 396-2000

October 17, 1991

Laurie Lile
Principal Planner
City of Palmdale
Development Services Department
38306 9th Street East
Palmdale, California 93550

Dear Ms. Lile:

RE: Comments on the Draft Environmental Impact Report for the Ritter Ranch Specific Plan

**State Clearinghouse #90010124
SCAQMD #LAC910820-02**

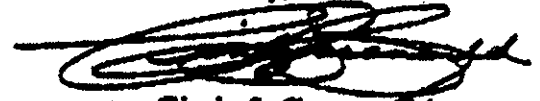
The South Coast Air Quality Management District (SCAQMD) has reviewed the Draft Environmental Impact Report (Draft EIR) for the above-mentioned project. The proposed project will generate short- and long-term air quality impacts which we believe were not adequately addressed in the Draft EIR.

SCAQMD is responsible for adopting, implementing, and enforcing air quality regulations in the South Coast Air Basin, which includes the proposed project site. SCAQMD reviews and analyzes environmental documents for projects that may generate significant air quality impacts. In this capacity, SCAQMD advises the lead agency.

The Draft EIR has not quantified all sources of emissions which will occur as a result of project construction and operation. Since all sources of emissions have not been quantified in the EIR, it is unlikely that air quality impacts from the project have been reduced to a level of insignificance. SCAQMD recommends that uncontrolled emissions from all components of the project be estimated and the total compared against SCAQMD's threshold levels to determine the project's significance. All feasible mitigation measures which will reduce emissions to the level of nonsignificance should be included in the Final EIR.

Attached is SCAQMD's review of the Draft EIR, including a detailed discussion of findings and recommendations. SCAQMD appreciates the opportunity to comment on the proposed project. A response to our comments prior to the public hearing would be appreciated. If you have any further questions, please contact Connie Day, Program Supervisor, at (714) 396-3055.

Sincerely,



Cindy S. Greenwald
Planning Manager

CSG:CAD:SRG

Attachment with Exhibit A
(SG10RSP1.DOC)

ATTACHMENT

SCAQMD REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR RITTER RANCH SPECIFIC PLAN AND ASSOCIATED ANNEXATION AREAS

The Draft Environmental Impact Report (Draft EIR) is intended to address environmental impacts associated with the approval and implementation of the 20-year Ritter Ranch Specific Plan and associated annexation areas. The project area is under consideration for annexation into the City of Palmdale. The project will be developed on a 10,625-acre site between 35th Street West and 80th Street West. The plan is divided into eight planning areas. Approximately, 7,601 acres of the Ritter Ranch site has been designated as open space for public use. Master planned communities within the immediate vicinity are currently in various phases of project development and/or processing. These projects include Santa Fe Hills Specific Plan to the northeast and the City Ranch Specific Plan to the east.

The residential and recreational land use consists of 4,616 dwelling units, an 18-hole golf course, an equestrian center, several equestrian trails and paths, 3 elementary schools, 1 middle school, 1 high school, 3 community parks, 1 fire station, 1 natural parkland area, 1 amphitheater, 1 lake and park area, 4 neighborhood parks, and 4 open space areas. Additionally, construction of on-site and off-site major and collector internal roadways, as well as, on-site and off-site infrastructure for drainage and utilities will take place.

AIR QUALITY SETTING

Attached is SCAQMD's 1990 Air Quality Monitoring Data. This data should be used to update the information contained in the Draft EIR.

LEVELS OF SIGNIFICANCE

Even though the buildout period is 20 years, the actual construction period will be 49 months. The Final EIR should estimate worst-case construction-related emissions for a typical construction day. SCAQMD's threshold levels to determine project significance are based on daily emissions. For a project to be considered insignificant, emissions should not exceed the threshold limits on any one day of construction activities. Therefore, to give decision makers a clear picture of the daily air quality impacts resulting from a project, SCAQMD recommends that worst-case total daily emissions be estimated and included in the Final EIR.

The Draft EIR (on page 102) further states that "...there are no established thresholds of air quality impact significance except that a project may not cause ambient air quality standards to be exceeded, nor measurably worsen any existing violations (although the AQMD Handbook for Preparing EIRs identifies a threshold for significance for various project types and emission quantities)." SCAQMD recommends clarification of this statement in the Final EIR. In a recent appellate decision, Citizens Association for Sensible Development of Bishop Area v. County of Inyo (4th District 1985) 172 Cal. App. 3rd 151, 171; 217 Cal. Rptr. 893, 906, the court held that an environmental document must disclose the data or evidence relied upon by the person(s) conducting the study. Mere conclusions simply provide no vehicle for judicial review. SCAQMD believes that additional analysis be conducted to quantitatively substantiate the project's impacts. SCAQMD also recommends that demolition-, construction- and operation-related emissions be mitigated in such a way that, daily emissions of particulate matter 10 (PM10), oxides of nitrogen (NOx), carbon monoxide (CO), volatile organic compounds (VOC) and oxides of sulfur (SOx) do not exceed the daily threshold levels of 150, 100, 550, 75, and 150 pounds, respectively.

The Draft EIR further states that "...there are a number of secondary sources of air emissions from a project that attract or generate automobile traffic, but they are usually less significant in quantity or duration than the vehicular sources. They include temporary emissions during construction, increased electrical power demand from regional generating stations, on-site combustion of natural gas for space and water heating, and cooking, and various population-related sources such as emissions from gas stations, dry cleaners, fireplaces and barbecues." SCAQMD believes that total emissions from all these sources may exceed SCAQMD's threshold levels. Additionally, insignificance associated with one component, rather than the whole project, is not a valid means of determining the entire project's significance. Therefore, such an isolated analysis should not be used in the Final EIR. A recent appellate decision, KINGS COUNTY RAIN FOREST BUREAU ET. AL. V. CITY OF HANFORD, (1990), 221 Cal. App. 692, declared an environmental document inadequate because it failed to evaluate the combined air quality impacts from all the air pollution components of the project. The court concluded that segmenting the impacts was inappropriate.

To determine the project's air quality significance, the combined total for both construction and operation should be compared separately against SCAQMD threshold criteria. The Final EIR should include this comparison, and its results with recommendations to mitigate emissions below levels of significance. The Draft EIR (on page 104) indicates that work schedules and equipment use for specific components of the project have not been precisely defined. The Final EIR should provide a reasonable estimate of the work schedule and equipment use for each construction and operational phase of the project based on the projected build-out and phasing of the project.

The Draft EIR states (on page 102) that "...the regional impact from any one project is incrementally small..." Also, Table 5 of the Draft EIR (on page 106) includes a comparison between project-related emissions and Antelope Valley-related emissions and indicates that Ritter Ranch shares only 5.1 percent emissions of the total Antelope Valley. The previously mentioned Hanford Case, 1990, 221 Cal. App. 692, concluded that even a relatively small amount of emissions should be considered significant in an already impacted geographic area. Therefore, such a method should not be used to determine project's significance. SCAQMD believes that comparing project-related emissions with regionwide, existing emissions is not a valid method of analyzing the project's significance. Project significance should be evaluated based on the projected emissions related to construction and operation.

CONSTRUCTION-RELATED AIR QUALITY IMPACTS

The Draft EIR (on page 103) describes the construction period in terms of build-out years and acre-months. To be able to verify daily emissions, the Final EIR should express work periods in terms of number of days for each phase. Emissions of fugitive dust and combustion contaminants, associated with each phase of the project, should also be documented.

Calculated Disturbance Area

Calculations on page 103 of the Draft EIR resulted in 21,130 acre-months (average acres under construction times average months under construction) of total build-out over a 20 year period. Using this calculation, the month-weighted average acres should have resulted in a value of 431.3 acre-month. However, in the discussion portion of the Draft EIR the month-weighted acre average is referred as 1,057. The Final EIR should explain methodology and assumptions used to calculate the value of disturbance area construction months. Total construction months are 49 out of 240 months to build-out of the project.

Vehicular Emissions

The Final EIR should indicate how many passenger and fleet vehicles will be used to transport employees and goods (building materials) to and from the work site on a daily basis. The Final EIR should also indicate that the commute trips of construction workers will be reduced to achieve a target equal to or greater than a 1.5 average vehicle ridership (AVR). i

Vehicular emissions associated with transporting the debris from cut and fill operations should be included in the Final EIR. The Final EIR should identify disposal and borrow site locations and their corresponding distances from the project site. The Final EIR should indicate how many daily truck loads will be required to haul soil and debris from the site. The gross vehicle weight and hauling capacity of each truck, and associated exhaust emissions should also be estimated and included. j

To estimate emissions from trucks and passenger vehicles traveling on public roads, speed-based (miles per hour) EMFAC7EP emission factors should be applied. These factors may be obtained by calling ARB at (916) 324-7156. Transportation/circulation-related emissions resulting from extra miles traveled by the public due to detours, idling, and traffic jams caused by slow moving construction vehicles, etc., should be estimated using a computer model equivalent to URBEMIS3 and not URBEMIS2 as indicated in the Draft EIR. The emission impacts due to delays at intersections should also be evaluated. Additionally, a computer model equivalent to CALINE3 or CALINE4 should be used to estimate microscale CO levels. k

Energy Consumption

The Final EIR should clarify if electrical energy for construction will be supplied by outside sources, or produced by generators at the project site. Associated emission estimates for both alternatives should be estimated using emission factors equivalent to those provided in SCAQMD's 1987 Air Quality Handbook For Preparing Environmental Impact Reports (EIR Handbook). l

Other Construction-Related Activities

The Draft EIR states that "...several roadways and new parking facilities will also be constructed." Emissions from paving materials associated with the construction of streets, parking areas or roofing materials associated with all of the buildings will be considerable and should be estimated and included in the Final EIR. The VOC content of paving and architectural materials may be calculated using the product formulation data provided on the Material Safety Data Sheets or the product labels, and by estimating the amounts that may be consumed by the project. Low-solvent, high-solids, and water-based paving materials and coatings (please refer to the requirements of Rule 1108, Rule 1108.1 and Rule 1113) should be used during the construction of streets or structures. m

The Draft EIR indicates that several project-related changes to nearby streets and street lights will occur such as the addition of lanes, stripping of additional lanes, installment of additional signals, increasing signal cycle lengths, etc. The Final EIR should include emissions associated with these activities (asphalt and striping paint usage, mobile equipment usage, etc.) and architectural coatings. Low energy consuming lighting, low VOC paving materials, and low VOC architectural coatings should be used.

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Parking Management

Parking spaces should be designed to promote carpooling and other pertinent transportation demand management activities. Also, an analysis of "Hot Spot" emissions from vehicle exhaust should be included for parking structures in commercial centers or office buildings, and accordingly, mitigation measures such as adequate ventilation should be included to reduce or eliminate the public's exposure to the saturated emissions in the parking structures. t

Energy Consumption

The Final EIR should include estimated energy consumption. The Draft EIR states that Southern California Edison (SCE) will supply the electrical energy. SCAQMD's EIR Handbook provides emission factors for SCE and natural gas consumption. Daily emissions should be estimated and included in the Final EIR. These emissions should then be added to the project-related vehicular emissions reported on page 106 of the Draft EIR. u

The Final EIR should specify the types of energy conservation techniques that will be considered to comply with the California Energy Commission Standards and the California State Building Standards. A winter and summer shade and shadow analysis should be included in the Final EIR. Whenever feasible, the use of shades and shadows should be encouraged to minimize the use of energy. v

EMISSION CONTROL ALTERNATIVES

Best Available Control Technology (BACT) analysis for the various alternative control options and equipment should be discussed in the Final EIR to control volatile organic compounds and Toxic Air Contaminants. The Best Available Control Technology Guidelines, published by SCAQMD, could be used for this analysis. The Final EIR should include a reference to these guidelines or its source, wherever BACT is mentioned in the Final EIR. w

MITIGATION MEASURES

The Final EIR should include all feasible means of mitigation for the adverse effects identified as "nonmitigable" in the Draft EIR to reduce potential emissions to the greatest extent possible. SCAQMD recommends that the mitigation measures listed in Exhibit A be included in the Final EIR to reduce air quality impacts below the level of significance identified in the SCAQMD's EIR Handbook. SCAQMD was pleased to see that a well outlined mitigation monitoring and reporting plan, a compliance reporting form, and the names of agencies that will administer the mitigation monitoring program has been included in the Draft EIR. SCAQMD recommends that rather than a Construction Manager as indicated on page 322 of the Draft EIR, a City Inspector or Engineer be the responsible party for monitoring compliance with all air quality control measures. Monitoring responsibility falls to the City and not the proponent. x

CONCLUSION

Daily construction-related work should be planned so that combined emissions from various equipment, materials and activities do not exceed the daily threshold limits provided in SCAQMD's EIR Handbook. Emission factors and estimating formulas should be used from SCAQMD's EIR Handbook to estimate emissions from energy consumption, mobile equipment and on-site trucks (off-highway trucks). Additional mitigation measures to minimize construction-related emissions should also be included.

The Draft EIR states that 1,403 pounds of nitrogen dioxide and 1,165 pounds of reactive organic gases will be generated daily from transportation-related activities, alone. These are significant amounts of emissions. However, the Draft EIR does not provide sufficient quantification from all emission sources to verify the overall air quality significance of the project. SCAQMD recommends that uncontrolled emissions from all components of the project be estimated and the total compared against SCAQMD's threshold levels to determine the project's significance. The Final EIR should have enough information to illustrate that emissions from each and every component of the project will be mitigated below threshold levels. If not, all feasible mitigations to reduce impacts to the greatest extent possible should be included in the Final EIR.

SCAQMD recognizes that parts of the Specific Plan are not certain at this time. Future construction and operations may require separate environmental review. SCAQMD recommends that all new projects within the Specific Plan be required to comply with the attached air quality mitigation measures as standard conditions of approval.

(SG10RSP4.DOC)

EXHIBIT A

MITIGATION MEASURES FOR POTENTIAL EMISSION SOURCES

1. **Limit Emissions from Vehicle Trips:**
 - o Participate in transportation system management programs by adding park-and-ride lots, additional bus or transit stops and services, preferential parking for ridesharers, reversible and one-way streets where needed, bicycle parking facilities, bicycle lanes, and pedestrian walkways.
 - o Encourage developers to facilitate the reduction of the number of trips that an individual makes from home or work by introducing compressed work weeks, telecommuting, and the combining of non-work trips.
 - o Encourage developers to reduce trips during the most congested periods and spread them throughout the day by introducing alternative work hours, flexible work hours, staggered work hours.
 - o Encourage developers to reduce vehicle trips associated with employee vehicles, and passenger or goods fleet vehicles by introducing ridesharing incentives, walking and bicycling incentives, parking management programs, auto use restriction programs, truck movement restriction programs, and user fees for parking spaces.
 - o Encourage developers to introduce employee incentive packages that include rideshare matching services, preferential parking for ridesharers, bicycle racks, lockers, shower rooms, free information on transit services, free or subsidized transit passes, and guaranteed ride home programs.
 - o Provide public education regarding the importance of reducing vehicle miles traveled and the related air quality impacts through the use of brochures, classes, etc.
2. **Encourage Developers to Minimize Indirect-Source Emissions:**
 - o Include energy costs in capital expenditure analyses.
 - o Incorporate appropriate passive solar design.
 - o Minimize electricity distribution losses.
 - o Limit installed lighting loads.
 - o Install lamps which give the highest light output per watt of electricity consumed.
 - o Control mechanical systems or equipment with time clocks or computer systems.
 - o Recycle lighting system- or process-heat for space heating during cool weather, and exhaust this heat via ceiling plenums during warm weather.
 - o Cascade ventilation air from high-priority (occupied spaces) areas to low-priority (corridors, equipment and mechanical spaces) areas before being exhausted.
 - o Encourage space cooling through landscaping, such as providing shades to facilities through tree planting.
 - o Encourage use of natural lighting.
3. **Encourage Developers to Minimize Particulate Emissions from Unpaved Roads:**
 - o Pave or chemically treat all unpaved road surfaces.
 - o Pave or chemically treat unpaved parking lots and vehicle staging areas.
 - o Set maximum speed limit on unpaved roads at 15 miles per hour.
 - o Establish dirt-removal programs to remove visible dirt accumulations from paved road surfaces.
 - o Pave construction access roads as soon as access roads are created. Paving must extend from the paved roadway into the construction area at least 120 feet in length; and paving must be cleaned at the end of each work day.

4. Encourage Developers to Minimize Particulate Emissions from Construction/Demolition Activities:
- o Comply with SCAQMD's Rule 1403.
 - o Phase grading to prevent the susceptibility of large areas to erosion over extended periods of time.
 - o Schedule activities to minimize the amount of exposed excavated soil during and after the end of work periods.
 - o Cover the road surface with material of lower silt content or soil stabilizers whenever possible.
 - o Sweep streets if silt is carried over to adjacent public thoroughfares.
 - o Require a phased schedule for construction activities to minimize daily emissions.
 - o Suspend grading operations during first and second stage smog alerts, and during high winds, i.e., greater than 25 miles.
 - o Wash off trucks leaving site.
 - o Maintain construction equipment engines by keeping them tuned.
 - o Use clean and low-sulfur fuel for equipment.
 - o Water or chemically treat all active projects with multiple daily applications to assure proper dust control.
 - o Chemically treat unattended (disturbed lands which have been, or are expected to be unused for four or more consecutive days) construction areas.
 - o Require all trucks hauling dirt, sand, soil, or other loose substances and building materials to be covered, or to maintain a minimum freeboard of two feet between the top of the load and the top of the truck bed sides.
 - o Encourage the planting of vegetative ground cover as soon as possible on construction sites.
 - o Restrict off-road vehicle use.
 - o Prohibit parking on unpaved and untreated parking lots.
 - o Lower vehicle speed limits on unpaved roads.
 - o Install vehicle wheel-washers before the roadway entrance at construction sites.
 - o Require paving, curbing, and vegetative stabilization of the unpaved areas adjacent to roadways on which vehicles could potentially drive (i.e., road shoulders).
 - o Use vegetative stabilization whenever possible to control soil erosion from storm water.
 - o Require enclosures or chemical stabilization of open storage piles of sand, dirt, or other aggregate materials.

(5010RSP3.DOC)

Response No. 30

South Coast Air Quality Management District
Ms. Cindy S. Greenwald

- 30a. Table 4, LOCAL AIR QUALITY LEVELS, and text on pages 96-101 in the Draft EIR will be revised to reflect the addition of 1990 air quality data.
- 30b. The months shown on page 103 of the Draft EIR are averages for each separate development area, not grading time for the entire land use category. The Draft EIR has estimated construction-related emissions using the EPA's dust emissions factor assuming 1.2 tons per month per acre, and a 50% reduction with implementation of mitigation measures to reduce dust generation. Therefore, the worst-case total daily emissions is estimated at 1.7 tons by taking the total of 1,057 acre-months that were assumed under construction each year during the 20-year Ritter Ranch buildout, multiplying it by the EPA's emissions factor of 1.2 tons per month per acre, reducing it by 50% through the implementation of dust control measures required by SCAQMD Rule 403, and dividing by 365 to obtain daily emissions of dust.

Estimated worst-case daily construction-related emissions during the assumed 20-year buildout period of the project are as follows:

Hydrocarbons:	280 lbs./day
Carbon Monoxide:	696 lbs./day
Nitrogen Oxides:	260 lbs./day
Total Particulates:	230 lbs./day
Sulfur Oxides:	219 lbs./day

- 30c. The air quality analysis in the Draft EIR adequately addresses the project's air quality impacts. The Draft EIR analyzed air quality impacts generated by the proposed project in Section IV.B, AIR RESOURCES. Specifically, impacts are discussed on pages 102 to 114. The EIR indicated that construction emissions without implementation of mitigation measures will substantially exceed indicated the threshold levels indicated in the Air Quality Handbook, prepared by SCAQMD. The "worst-case" construction emissions are provided in Response No. 30b. The degree of reduction by implementing these mitigation measures is not known, but it is assumed to that construction-related emissions will remain significant. Operation emissions will substantially exceed the daily threshold levels even with implementation of mitigation measures. However, all required SCAQMD Rules and Regulations will be implemented, in addition to mitigation measures in the EIR.
- 30d. Text in the Draft EIR indicates that the secondary sources are "generally small on an individual project basis". Emissions from natural gas consumption and from electrical energy generation are provided in Table 8 on page 123 of the Draft EIR. It is considered speculative to estimate emissions from the various small sources such as petroleum product storage, use of paints, thinners, and solvents, use of asphalt, and roofing tar, etc., as noted on page 113 of the EIR; the extent to which these emissions sources will be included in the proposed project is not currently known. Table 8 of the EIR provides composite daily mobile and stationary emissions (Table

8 emissions generated by the primary pollutant sources), and cumulative air emissions are provided in (Table 5 of the Draft EIR).

- 30e. Please refer to Response No. 30c. Construction impacts are addressed on pages 102-105, and operation impacts are addressed on pages 105-114 which are compared individually to SCAQMD threshold criteria. It is not possible at this time to provide a reasonable estimate of the work schedule and equipment use for each construction and operational phase of the project due to the conceptual nature of the project plans.
- 30f. The comparison between project-related emissions and Antelope Valley-related emissions is not used as a basis for significance in the EIR. --The EIR evaluates project significance in terms of projected emissions related to construction and operation. The Ritter Ranch project is in the Southeast Desert Air Basin (SEDAB) which is considered a regionally impacted air basin. Project-related emissions are clearly stated as being individually and cumulatively significant, as stated on pages 105, 107 and 116.
- 30g. It is not possible at this time to evaluate daily emissions in terms of number of days for each phase as the project phases are tentative and may include multiple separate grading operations. The EPA dust emission factor of 1.2 tons is in acre-months which is why the EIR describes the construction activity in terms of acre-months. Additionally, emissions for a given phase could be derived from the total project emissions.
- 30h. The methodology and assumption used to calculate the value of disturbance area are as follows:
- The total buildout (over a 20-year period) in acre-months was divided by the number of years of project buildout, which resulted in an average of grading activity per year.
- $$21,130/20 = 1,057 \text{ acre-months/year}$$
- Refer to text on page 103 of the EIR which explains how the acre-months annual average was calculated.
- 30i. It is not possible at this time to evaluate how many passenger and fleet vehicles will be used to transport employees and goods on a daily basis due to the conceptual nature and scale of the project.
- 30j. It is not possible at this time to evaluate vehicular emissions associated with transporting debris from cut and fill operations due to the conceptual nature and scale of the project. However, the site is balanced the project will have a balance of cut and fill, except for the exportation of some fill material to adjacent Elizabeth Lake Road and the anticipated import of specialty material (i.e., river rock, etc.). Therefore, no long distance track hauling is anticipated to be necessary.
- 30k. The air quality analysis in the Draft EIR utilized EMFAC7C and URBEMIS2, which were models available at the time that the analysis was done. Discussions with the

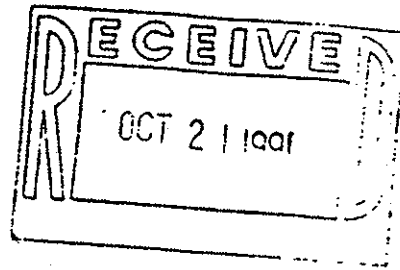
air quality subconsultant, Giroux & Associates, indicate that use of the EMFAC7EP and URBEMIS3 computer models will not significantly alter the air quality analysis as presented in the Draft EIR. ~~However, Giroux & Associates will run the two computer models, and should any significant air quality data result, the Final EIR will indicate this.~~ Additionally, CALINE4 was used to evaluate hourly CO concentrations.

- 30l. Electrical energy for construction will be supplied by adjacent electrical lines. It is not possible at this time to estimate associated emissions due to the conceptual nature and scale of the project. Associated construction emissions are not expected to be greater than the annual stationary source emissions indicated on page 112 of the EIR.
- 30m. Estimates of emissions from paving materials, parking areas, and roofing materials is considered speculative and ~~not required~~ cannot be generated at this time. The Specific Plan does not identify the extent of paving and parking areas that will be required for commercial uses, multi-family residential uses, or recreational uses. Paving for streets, other than regional roadways, cannot be determined because local in-tract streets are not shown in the Specific Plan. Roofing materials have now been identified and called out in the Specific Plan. However, the project will comply with all SCAQMD Rules and Regulations (refer to Mitigation Measure #29), to control these sources of emissions, among others.
- 30n. No significant secondary source emissions ~~are known~~ have been identified in the Specific Plan. Secondary emissions from natural gas consumption and electrical energy generation have been identified (refer to Table 8). Mitigation Measure No. 29 requires that the project will comply with all SCAQMD Rules and Regulations, including those that regulate emissions from the secondary sources listed in the comment.
- 30o. ~~Page 109 of the EIR indicates that no significant air quality impacts are anticipated along any area roadways due to the low ambient concentrations. A CALINE4 analysis was used to evaluate hourly CO concentrations along area roadways. That analysis, using a 2010 scenario, did not identify any "hot spots" where CO emissions levels exceeded State or Federal Clean Air standards. No sources of toxic pollutants were identified during a review of the Specific Plan. Therefore, no sensitive receptors will be significantly impacted by the proposed development.~~
- 30p. With respect to Transportation Systems Management Programs, several roadways were identified as requiring widening and/or other improvements. Mass transit facilities and widening of the freeway were not specifically included in the list of mitigation measures for the project. However, the project will comply with the requirements of the County's Congestion Management Plan which is anticipated to include an impact fee to provide for regional infrastructure improvements. The EIR includes Mitigation Measure #27 which requires implementation of Final 1991 AQMP Tier I, II, and III Control Measures. Additionally, Mitigation Measure #72 requires that all road improvements be designed in accordance with City of Palmdale and Ritter Ranch Specific Plan roadway design standards as approved by the City Engineer. ~~Comment has been acknowledged, and will be taken into consideration~~

- by the City during project deliberations. The EIR includes the requirement for a Transportation Demand Management Plan (Mitigation Measure #72). Mitigation Measure #72 will be revised to reference the document indicated in the comment.
- 30q. Comment has been acknowledged regarding the type of golf cart and means of operation, and will be taken into consideration by the City during project deliberations. It is considered speculative at this time to estimate secondary emission sources from the transport of project-related solid waste and sludge due to the conceptual nature and scale of the project. It should be noted that the Antelope Valley Landfill is approximately 5 miles from the middle of the Ritter Ranch project area.
- 30r. Comment has been acknowledged regarding the use of EMFAC7D or EMFAC7EP emission factors in future projects. Vehicular CO emission factors used with the CALINE4 model are shown in Appendix C of the EIR.
- 30s. It is not possible at this time to include emissions from delays at intersections due to the conceptual nature and scale of the project. However, the project will mitigate intersection congestion and related emissions. The Draft EIR includes Mitigation Measures #77 ~~(#72 and #76)~~ regarding compliance with the provisions of the Los Angeles County Transportation Commission's Congestion Management Plan adopted pursuant to State law. ~~(once completed.)~~
- 30t. There are no parking details available for the project at this time. The comment regarding an analysis of "Hot Spot" emissions has been acknowledged and will be taken into consideration by the City during project deliberations. ~~(refer to Mitigation Measure #72)~~
- 30u. Estimated project energy consumption is provided on estimated to be 39 megawatts/year of electricity and 1,095 therms/household/year of natural gas (refer to pages 272 and 286 of the EIR). Daily stationary emissions are shown on due to electrical consumption is expected to be 1.4 lbs/day of Reactive Organic Gas (ROG), 28.4 lbs/day of Carbon Monoxide (CO), and 163.1 lbs/day of Nitrogen Oxides (NO_x). Natural gas combustion will emit 8.4 lbs/day of ROG, 31.7 lbs/day of CO, and 129.4 lbs/day of NO_x (refer to Table 8 of the EIR).
- 30v. Mitigation Measure #28 states that all applicable energy conservation practices shall be implemented. Shade and shadow studies, if required, will be conducted at the Tentative Map/CUP stage.
- 30w. Due to the conceptual nature of the project, it is not possible to determine the extent that best available control technology can be utilized. However, a reference will be added to Mitigation Measure No. 27 to include the Best Available Control Technology Guidelines. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations. A reference to the indicated document will be added to Mitigation Measure #29.
- 30x. The project will implement Mitigation Measures #22, 27, 29 and 72, including all applicable SCAQMD Rules and Regulations. The requested changes on page 322

of the Draft EIR from "Construction Manager" to "City Inspector", will be made in the Final EIR.

- 30y. Refer to Response Nos. 30c, 30d, 30e, 30f, 30o, and 30y. All feasible mitigation measures as well as required SCAQMD Rules and Regulations to reduce impacts to the greatest extent possible ~~will be~~ are included in the Draft Final EIR.
- 30z. ~~Comment has been acknowledged, and will be taken into consideration by the City during project deliberations. Review of the list attached to SCAQMD's comment letter revealed that many of the suggested measures are not feasible on single-family residential projects. However, as development applications are received, they will be reviewed, and those measures from the list which are deemed appropriate by the Planning Director will be applied to that development application.~~



October 18, 1991

Palmdale Planning Commission
38306 9th Street East
Palmdale, California 93550

Re: Ritter Ranch Development

Dear Commissioners,

This is a letter of support for the Ritter Ranch Development. This project is a strong asset to Palmdale and the Antelope Valley as a whole. I am particularly impressed with the detailed planning putting emphasis on the quality of life available to Palmdale residents in the future. It may be one of Southern California's finest showcases.

Respectfully,


Paul L. Frise
A.V. College Instructor
1008 West Avenue M-4, Suite C
Palmdale, California 93551

Response No. 31

Mr. Paul L. Frise

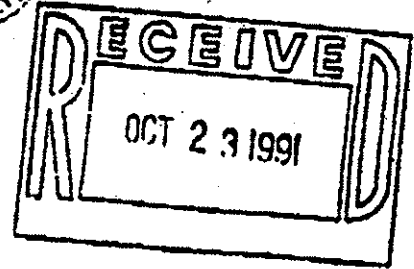
(Antelope Valley College Instructor)

31a. This comment will be considered by the City during project deliberations.

SAN BERNARDINO COUNTY MUSEUM

COUNTY OF SAN BERNARDINO
GENERAL SERVICES AGENCY

024 Orange Tree Lane • Redlands, CA 92374 • (714) 788-8570 • 422-1610

DR. ALLAN D. GRIESEMER
Director

October 18, 1991

City of Palmdale Planning Department
Attn: Laurie Lile
38306 9th Street East
Palmdale, CA 93550

re: REVIEW OF DRAFT EIR 90-04. RITTER RANCH SPECIFIC PLAN

Dear Ms. Lile:

The draft document mentioned above is correct. The project parcel is located on sediments where non-renewable paleontologic resources must be considered.

The mitigation measures described on pages 262 & 263 comply with the guidelines established by the Society of Vertebrate Paleontology and will satisfy the requirements to mitigate impacts to non-renewable paleontologic resources.

Sincerely,

Scott Springer

Scott Springer,
Site Records Manager, Earth Sciences

Response No. 32

San Bernardino County Museum

Mr. Scott Springer

32a. Comment has been acknowledged. No response is required.

COMMENT NO. 33

STATE OF CALIFORNIA

PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LAHONTAN REGION

VICTORVILLE BRANCH OFFICE
18428 CIVIC DRIVE, SUITE 100
VICTORVILLE, CA 92382-2358
(619) 241-6883
FAX No. (619) 241-7308



October 3, 1991

Lauri Lile
City of Palmdale
38306 9th Street East
Palmdale, CA 93550

Dear Ms. Lile:

COMMENTS ON DRAFT ENVIRONMENTAL IMPACT REPORTS (DEIR) AND SPECIFIC PLANS (SP)
FOR THE FOLLOWING PROJECTS, PALMDALE, LOS ANGELES COUNTY

DEIR AMARGOSA CREEK IMPROVEMENT PROJECT (PHASE II) (SCH# 90010820)
CITY RANCH DRAFT SPECIFIC PLAN
DEIR RITTER RANCH SPECIFIC PLAN (SCH# 90010124)
RITTER RANCH DRAFT SPECIFIC PLAN

We have reviewed the above documents. We understand that the Ritter Ranch and City Ranch developments will use facilities associated with the Amargosa Creek Phase II improvement project. Although the projects are separate, our comments reflect all three proposals because they are related.

SEWAGE FLOW

At buildout, the City Ranch will contribute 1.27 million gallons per day (mgd) and the Ritter Ranch 2.1 mgd of waste water to the Los Angeles County Sanitation District (LACSD) No. 20 plant in Palmdale. The Regional Board adopted Board Order No. 6-89-31 which limits the discharge from the plant to 6.5 mgd after Phase I, 8.0 mgd after Phase II, and 9.2 mgd after Phase III expansions. Phase II expansion is expected to be complete by November 1991. LACSD No. 20 is currently out of compliance with waste discharge requirements, because the average daily flow is 7.5 mgd as opposed to the 6.5 mgd allowed.

COMMENT

No additional projects should be approved by the City of Palmdale that would significantly increase the waste water flow to the plant until the plant has been expanded to accommodate such flow.

a

EARTHQUAKE DAMAGE TO SEWER TRUNK AND COLLECTOR LINES

As part of the Amargosa Creek phase II improvement project, a sewer trunk line will be extended along the creek as Elizabeth Lake road is widened. Collector lines from both the Ritter Ranch and City Ranch will feed into the trunk line. The San Andreas fault parallels Elizabeth Lake Road in the vicinity of the Ritter Ranch.

Buena Engineers issued a preliminary geotechnical engineering report dated November 1, 1989 that indicates "it is reasonable to assume that a fault rupture will occur again along or near the main trace of the local San Andreas fault. Maximum anticipated right lateral horizontal displacement along the main trace of the local San Andreas fault is estimated to be approximately 15 feet (+/- 5 feet)."

COMMENT

A rupture of the sewage trunk and collector lines in the project vicinity could create serious health hazards. A detailed emergency spill response plan should be prepared for this event. The plan should include early warning of a leak, installation of manual or automatic isolation valves, provisions for spilled sewage retention, spill response measures, cleanup and disinfection measures, and training and funding for the spill plan implementation.

b

RETENTION BASIN "B"

A number of stormwater retention basins are proposed along Amargosa creek. The largest is basin "B" in the northwest corner of the project having a storage capacity of 2,050 acre feet, a surface area of 124 acres, a maximum depth of 34 feet, and requiring 2.1 million cubic yards of excavation of material. Ground water in the Amargosa creek flood basin is shallow and reportedly as shallow as two feet in the vicinity of basin "B". A 25 acre wetlands mitigation plan is proposed for a portion of basin "B". An adjacent golf course is to be constructed on the Ritter Ranch; a portion of which will be within basin "B". In addition to surface runoff from the golf course and undeveloped watershed lands, urban runoff pollutants from the Ritter Ranch will be directed to basin "B". Amargosa creek is identified as contributing to ground water recharge for the Antelope valley. Contaminants entering Basin "B" could be introduced directly into the ground water.

COMMENT:

The Regional Water Quality Control Board is identified as the lead agency for the National Pollutant Discharge Elimination System (NPDES) permit under Section 13376 of the California Water Code. An NPDES stormwater permit may be required for surface flows associated with construction activities and urban runoff from the projects. The State Water Resources Control Board is working on but has not finalized permitting requirements for stormwater runoff. Applicants should contact this office for additional information. Further, a report of waste discharge may be required under Section 13260 of the California Code for persons proposing projects of this nature that could affect water quality (non-NPDES permit).

c

WATER QUALITY CONTROL PLAN

The DEIR indicates that the City of Palmdale shall prepare a Water Quality Control Plan by the city engineer prior to issuing grading permits for the Amargosa Creek project. The plan is intended to indicate specific means of reducing urban pollutants and sedimentation. The Water Quality Control Plan should include hydrology calculations along with plans and controls to handle onsite and offsite runoff.

COMMENT: The Water Quality Control Plan should be submitted to the Regional Board for comments. It should include a detailed analysis of post-construction pollution contamination potential from Basin "B". The effects of runoff from the expanded highway, the proposed developments and the golf course into a wetlands environment contributing to direct ground water recharge of the Antelope Valley aquifer should be discussed as well as specific mitigation measures.

If you have any comments, please contact Jehiel Cass or Ken Carter at the above number.

Sincerely,



Hisam A. Baqai
Supervising Engineer

cc: Attached mailing list

rp5-111e

Lile
Page 4
October 2, 1991

MAILING LIST

LOS ANGELES SANITATION DISTRICT NO 20
1955 WORKMAN MILL RD
WHITTIER CA 90607

LOS ANGELES COUNTY DEPT OF PUBLIC WORKS
419 WEST AVENUE J
LANCASTER CA 93534

PALMDALE WATER DISTRICT
2005 EAST AVENUE Q
PALMDALE CA 93500

RITTER RANCH ASSOCIATES
849 WEST PALMDALE BLVD
PALMDALE CA 93551

KAUFMAN AND BROAD
38345 30TH STREET EAST STE A
PALMDALE CA 93550

LEONA VALLEY TOWN COUNCIL
PO BOX 795
LEONA VALLEY CA 93551

STATE CLEARINGHOUSE
1400 TENTH STREET
SACRAMENTO CA 95815

Response No. 33

California Regional Water Quality Control Board

Mr. Hisam A. Baqai

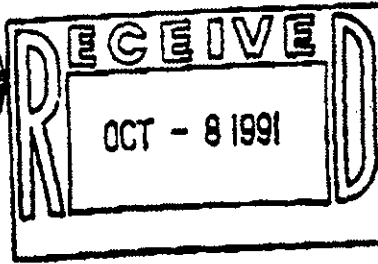
- 33a. The Ritter Ranch Specific Plan project is currently in the approval process in terms of EIR certification and subsequent development plan approvals. As Phase II of the Los Angeles County Sanitation District No. 20 expansion is expected to be completed by November, 1991, the Ritter Ranch Specific Plan project is not anticipated to be approved prior to the Phase II expansion.
- 33b. A requirement for an emergency spill response plan will be included as a mitigation measure in Section IV.A of the Final EIR, and will require the following: measures to detect early warning of a sewage trunk leak, the installations of manual or automatic isolation valves, provisions for spilled sewage retention, spill response measures, cleanup and disinfection measures, and training and funding for implementation of the spill plan.
- 33c. Comment has been acknowledged and will be taken into consideration by the City during project deliberations. Mitigation Measure #36 in the Draft EIR requires the applicant to submit a water quality control plan in compliance with the provisions of any NPDES permit requirements that may be required by other regulatory agencies.
- 33d. The water quality control plan required for Ritter Ranch will be submitted to the Regional Board for review and comment.

ANTELOPE VALLEY UNION HIGH SCHOOL DISTRICT

BOARD OF TRUSTEES
E. HAROLD WRIGHT

4411 SIERRA HIGHWAY, LANCASTER, CALIFORNIA 93534-3226
(805) 948-7855

V. ANDREJCIC
G. McMULLEN
STEVE LANDAKER
SOPHIA WAUGH



ADMINISTRATION
DR. KENNETH BRUMMEL
DISTRICT SUPERINTENDENT
DR. ROBERT H. SANCHE
ASSISTANT SUPERINTENDENT
EDUCATIONAL SERVICES
E. MICHAEL ROSSI
ASSISTANT SUPERINTENDENT
PERSONNEL SERVICES
DARLENE HINKEL
ASSISTANT SUPERINTENDENT
BUSINESS SERVICES

October 4, 1991

Ms. Laurie Lile
Planning Department
City of Palmdale
38306 9th Street East
Palmdale, CA 93550

Dear Ms. Lile:

Subject: Ritter Ranch Environmental Impact Report

The Ritter Ranch project, which will have 6700 residential units, excluding senior housing, will generate approximately 1340 high school students. Based on our year round design capacity of 2500 students, the Ritter Ranch project would generate students to fill 48% of a high school. The nearest high school, Highland High school, will be at capacity without this project, so a high school will be required in or near this project. The standard site size is 50 acres. The cost of a high school is \$14,000.00 to \$15,000.00 per student, amounting to approximately \$35,000,000.00 per school.

In order to provide for the students generated by this project, we would request that the developer be required to do the following to mitigate the impact of the project:

1. Participate in a Mello Roos Community Facilities District created to provide funding for construction and equipping high schools within the Antelope Valley Union High School District. The level of funding shall be adequate to provide 50% of the requirement for schools generated by this development based on a generation factor of .2 high school students per single family dwelling. The balance of the funding would come from the state.
2. A site will be required to house the students generated by this project and by the adjacent City Ranch project. The District requests that the two developers jointly designate, for purchase by the District, a site, located on their common boundary that will satisfy the need for a 50 acre site. Based on the projected number of students generated by the two projects, Ritter Ranch would be required to furnish 28 acres of the required 50 acres. The District staff has reviewed the two

a

Ms. Laurie Lile
City of Palmdale
October 4, 1991
Page 2

specific plans and find that proportional portions from the following planning areas would satisfy the District requirements. These are listed in order of preference and are shown on a composite map of portions of the two tracts:


- A. Ritter Ranch - Planning area 5X and City Ranch - Planning area 14.
- B. Ritter Ranch - Planning area 6Y and City Ranch - Planning area 17.
- C. Ritter Ranch - Planning area 5W and City Ranch - Planning area 5.

The final site designation shall be subject to approval by the District and shall meet the following conditions:

1. The site shall be made available for purchase by the District at a price not to exceed the average of three appraisals.
2. The site shall be economically and technically suitable for construction of a school site and its associated facilities. It shall meet all geological and seismic requirements.
3. The site shall be subject to the approval of all local and state agencies having jurisdiction and shall meet all those requirements in effect at the time of purchase.
4. Utility services, water, sewer, gas, electricity, and telephone, shall be available to the site at no cost to the District prior to start of school construction or prior to the completion of 25% of the total dwelling units within either project whichever is earlier.
5. Access to the site, improved to the appropriate city or county standards, shall be provided to the site at no cost to the District.

Should you have any questions, please contact our District Engineer, Richard Aitken.

Sincerely,



Kenneth Brummel
Superintendent

RJA:kb

Attachment

Response No. 34

Antelope Valley Union High School District
Mr. Kenneth Brummel

- 34a. Comment has been acknowledged, and mitigation measures in the Draft EIR text will be revised accordingly.

OCT 23 1991

October 20, 1991

Palmdale Planning Commission
38306 9th Street East
Palmdale Boulevard, CA 93550

Re: Ritter Ranch Development

Dear Sirs:

We have been residents and property owners in Leona Valley on Bouquet Canyon Road for 15 years. Our property is near the Ritter Ranch development.

We are totally opposed to this rape of the land of Leona Valley. We have reviewed the Environmental Impact Report on Ritter Ranch and there are too many unmitigatable circumstances that cannot warrant a development like this in our valley. a

We are opposed to the traffic that no one wants to address, that will be pouring down our 2 lane Bouquet Cyn. Rd. from Elizabeth Lake Road and the Ritter development. b

We are opposed to the destruction of the natural environment and the pollution caused by moving millions of yards of dirt to accommodate postage stamp lots over a period of 20 years. c

All this adds up to higher taxes, loads of pollution, a temperature change that may destroy the crops of Leona Valley as well as more accidents and crime, and don't forget the earthquake predicted within the next 30 years in the Environmental Impact Report that will certainly spin the heads of Palmdale City Fathers with law suits, when homes are built on or near the earthquake fault. d

We want development consistant with the area, 2½ acre minimum size lots.

Ask not what you are doing for Palmdale but what are you doing to Leona Valley.

Sincerely

Marvin D. Eder

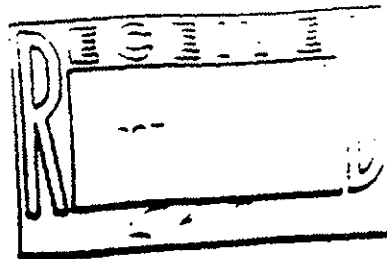
Linda S. Eder

Marvin D. and Linda S. Eder

Response No. 35

Marvin and Linda Eder

- 35a. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.
- 35b. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations. The impacts to Bouquet Canyon Road have been discussed in Section IV.I of the Draft EIR, as well as in response to other comments made on this roadway.
- 35c. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations. The impacts due to grading have been discussed in Section IV.A of the Draft EIR; impacts to landform have been determined to be significant.
- 35d. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.



October 21, 1991

Palmdale Planning Commission
38305 9th Street East
Palmdale, CA 93550

Dear City of Palmdale Planning Commission,

This letter is in support of the Ritter Ranch development.

I have been following this project very closely since first conceived in 1979. I have attended several meetings in the planning of this quality project.

We all know that the Antelope Valley is going to continue to develop. It is the closest open space that exists within commuting distance from Los Angeles. The staff of the Ritter Ranch project wants to develop a quality development. This is why the plan includes parks, greenbelts, and thousands of acres of open space amongst the rolling hills of the Leona and Antelope Valley.

In my support I look to the Ritter Ranch development to be a great asset to the communities of Palmdale, Lancaster and the County of Los Angeles. Ritter Ranch has asked for input from local residents in their planning of this project. They have used the community response in proposing a project to meet the approval of the local residents and preserve the open space with parks and recreation areas. There will be jobs created with this project from construction through the daily living in the community with areas of Commercial and Industrial Zones parcels used to service the community.

This development has merit and is well planned to be an asset to our Community.

Thank you for allowing me to present my views on the Ritter Ranch Planned Development.

Sincerely,

Herb Carlson
1727 West Ave K
Lancaster, CA 93534
805-945-4521

Response No. 36
Mr. Herb Carlson

36a. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.

OCT 24 1991

NORMAN AND CHRISTINE JACOBSON
9811 LEONA AVENUE
LEONA VALLEY, CALIFORNIA 93551

October 21, 1991

Planning Commission
City of Palmdale
Palmdale City Hall
703 East Palmdale Boulevard
Palmdale, California 93550

RE: EIR Hearing on Ritter Ranch

Gentlemen:

The Ritter Ranch project as proposed with all the related changes to the area is unquestionably an act for financial gain, without regard to who will be paying for the unnecessary development and services. Does Palmdale need more area? Isn't there enough bankrupt builders and vacant properties now? Isn't there enough open area yet to be developed over the next 20 years. If you allow these builders to overwhelm the area with new homes what will happen to the inner city area and the other developers that have helped build the existing city.

This area is subject to floods and earthquakes, so why let it be developed on such a massive scale. Let it continue to be a rural community. Or is the City Council just looking at the income side.

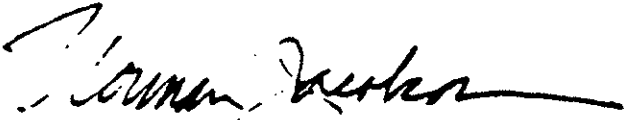
Citizen of your community do not need to be burdened with more taxes. And what will happen after you get all these improvements and the project begins and there is nobody interested in high priced homes with big tax burdens? Who will pay for the Lake Elizabeth Highway and the utilities and all the maintenance of the trails and facilities that Ritter Ranch proposes?

The project is far too massive, far too risky, far too devastating to one of the only remaining rural areas. The city will not be gaining anything except the possibility of a massive debt, while disrupting the life style of the people who already inhabit the area.

We moved to Leona Valley a year ago to get away from the pollution, the noise, the congestion and traffic, as did many of our neighbors. At the time I was told that land in this valley could not be split into properties less than 2 1/2 acres. This influenced my decision to purchase property here because I wanted to live in an area where there would not be massive development. This project proposed will force me to live with all the things I moved here to avoid.

We are against the approval of this project as it has been proposed. As a prudent planning commission you should be also. You will be destroying more than developing...and at great risk. In our opinion this project is unwarranted and unnecessary as it has been proposed. If the area is to be developed it should be rural like the community that now exists.

Sincerely,



Norman Jacobson

Response No. 37

Norman and Christine Jacobson

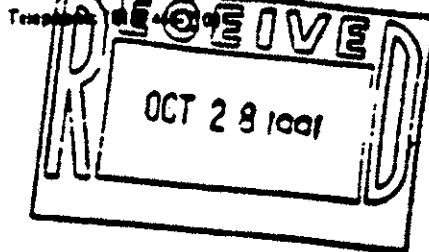
- 37a. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations. Impacts due to flooding and seismicity have been discussed in Sections IV.C and IV.A, respectively. Impacts due to seismic hazards were determined in the Draft EIR to be significant.
- 37b. Funding for offsite improvements to Elizabeth Lake Road and the utilities included in that right-of-way is expected to be provided through Assessment District 90-01. The assessment district requires those property owners who benefit from the improvements to pay for those facilities over the life of the assessment district. In the event that an Assessment District is not formed to construct these facilities, the responsibility to provide them, in the degree necessary to support the proposed project, will fall to the developer of the site. In that case, the developer would be responsible for funding the facilities or arranging for alternative financing. Responsibility for the long-term maintenance of the facilities proposed for the Ritter Ranch project is described in Section 8 of the proposed Ritter Ranch Specific Plan.
- 37c. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.



COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

THOMAS A. TIDEMANSON, Director

100 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91801-1111



ADDRESS ALL CORRESPONDENCE
P.O. BOX 440
ALHAMBRA, CALIFORNIA 91801-0440

October 22, 1991

4-1000-0-1451 P-6
4-1000-0-1451

Ms. Laurie Lile
Planning Department
City of Palmdale
38306 9th Street East
Palmdale, CA 93550

Dear Ms. Lile:

**RESPONSE TO A DRAFT ENVIRONMENTAL IMPACT REPORT
RITTER RANCH SPECIFIC PLAN**

As indicated in our letter dated October 10, 1991, we are now forwarding further comments on the Draft Environmental Impact Report (DEIR) for the proposed Ritter Ranch Specific Plan. Our comments are as follows:

Waste Management

Los Angeles County is experiencing a shortage in solid waste disposal capacity this year. The proposed development will adversely impact disposal facilities. To alleviate this crisis, the California Integrated Waste Management Act of 1989 requires development of programs for diverting 25 percent of the solid waste stream from landfills and transformation facilities by 1995 and 50 percent by the Year 2000. To meet these mandates, the Specific Plan should identify waste quantities that will be generated along with mitigation measures of waste reduction, recycling, and composting programs. Also, the Specific Plan should identify development standards to provide adequate "storage areas" within each type of development group and each type of handling for collecting recyclable materials.

The existing hazardous waste management (HWM) facilities in this County are inadequate to handle the hazardous waste currently being generated. The proposed residential development will generate hazardous waste, which could adversely impact existing HWM facilities. The DEIR should address this issue and provide mitigation measures.

The Specific Plan should clearly recognize the potential for compliance with a National Pollutant Discharge Elimination System (NPDES) Permit for stormwater discharges as well as permits for construction activity. Although the stormwater discharge permit does not currently apply to the Antelope Valley area, it can be expected to impact the area during the development period at the project. Construction permits to be issued by the State should be expected to be required by early to mid-1992. C

Should any operations at the subject facility include installation of underground storage tanks and/or industrial waste discharge, this office will have to be contacted for issuance of the necessary permit(s). d

If you have any questions regarding these comments, please contact Mr. Michael Bohlander of our Waste Management Division at (818) 458-3562. Questions regarding the environmental reviewing process of this Department can be directed to Ms. Clarice Nash at the above mailing address or at (818) 458-4334.

Very truly yours,

T. A. TIDEMANSON
Director of Public Works

Carl L. Blum
CARL L. BLUM
Assistant Deputy Director
Planning Director

MA:aa
WP51/.30

Enc.

Response No. 38

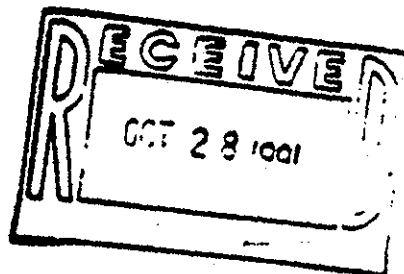
County of Los Angeles Department of Public Works
Mr. Carl Blum

- 38a. The Draft EIR has analyzed the impact of the proposed project on the existing solid waste disposal capacity in Palmdale. The City is aware of the California Integrated Waste Management Act of 1989, and in response to that legislation, the City has prepared the Draft Source Reduction Element and the Draft Household Hazardous Waste Element. These documents describe methods of reducing the waste stream to local landfills. Implementation of these plans will occur city-wide, and therefore, will be applied to the future residents of the Ritter Ranch project. With this in mind, however, the Draft EIR concludes that there may be a significant cumulative impact to solid waste facilities if the planned expansion of the landfill does not occur. Staff suggests that this issue has been adequately addressed in the EIR for the project.
- 38b. The Specific Plan does not suggest that any significant source of hazardous waste will occur on the project site. However, development of the site as a residential community will result in the generation of household hazardous wastes. The City's Draft Household Hazardous Waste Element suggests measures to reduce the volume of this waste. When adopted, this plan will apply city-wide, including the Ritter Ranch project area. The Draft EIR will be revised to reflect that this plan is applicable to the project and that the implementation of this plan will act to reduce the volume of household hazardous materials generated by the project.
- 38c. The Draft EIR recognizes that implementation of a National Pollutant Discharge Elimination System Permit may apply to the Antelope Valley at a future date. If that is the case, the Ritter Ranch project would be subject to the requirements of this permit (refer to Mitigation Measure #36).
- 38d. No such facilities are proposed for the project site at this time. In the future, if underground storage tanks or industrial waste discharge is proposed, a separate environmental review for this use will be required to assess the potential environmental impacts.

COMMENT NO. 39

Reply to: 1950 NEPA

Date: October 24, 1991



Ms. Laurie Lile
City of Palmdale Planning Department
38306 9th Street East
Palmdale, CA 93550

Dear Ms. Lile:

Thank you for granting the Forest Service an extension to the comment period for the Ritter Ranch Draft EIR because the document was sent to the wrong Forest Service office. Further correspondence regarding the Ritter Ranch project should be sent to this office at the above address.

Comments of the USDA Forest Service regarding the Draft EIR are as follows:

1) The Draft EIR does not consider or discuss impacts to the National Forest as a result of the proposed project even though the project specifically plans to build trails designed to continue onto National Forest Land. This area of the Forest is not designated to contain any trails other than the Pacific Crest Trail. Our Land Management Plan does not allow the creation of trails in this section of the forest. Encouraging and creating unauthorized trail systems on National Forest land will result in a trespass violation. In addition, the proposed project as currently designed will certainly result in unauthorized use of motorcycles and mountain bikes on the Pacific Crest Trail. Representatives of the Forest Service made this same comment at a public scoping meeting for the Ritter Ranch EIR. Apparently the comments were not incorporated into the document, so we are submitting them in writing at this time.

2) The proposed trail system must be designed to exclude motorcycles and off-road vehicles. Signing is an inadequate protection measure. Previous developments in the vicinity of National Forest land have taught us that this project will likely result in residents riding motorcycles onto National Forest land in an unauthorized area. Special gates and barriers must be installed and maintained that will prevent this from occurring. Illegal trails and use by motor vehicles results in a loss of vegetation, accelerated erosion, increased accidents, and potential loss of threatened, endangered or rare plants and animals.

3) The column titled "Unavoidable Significant Impacts" in the Executive Summary is often incomplete at the bottom of the page. For instance, in Section D., Biological Resources, the last sentence in the

column is "Therefore, development of the proposed Specific Plan would"
-- there is no continuation of the sentence on the following page.

4) Arundo donax should be included in Mitigation Measures #41 and #42. This plant is extremely invasive and causes tremendous destruction of riparian habitat. The adjacent National Forest is currently developing an eradication plan to control this plant in our canyons. This control program is extremely difficult and expensive to conduct and the proposed Ritter Ranch development could act as a point source for continued invasions onto the National Forest.

5) Mitigation Measure #50 - signing is inadequate protection for sensitive areas such as springs. Signs are easily removed or destroyed and maintenance is expensive and time-consuming.

6) Page 134 - Quercus basilaris Engelm. & Sigel. is identified as one of the plants found in the project area. However, the document does not reveal whether it is variety basilaris or brachyclada. Quercus basilaris var. brachyclada is listed as a Federal Category 2 species.

7) Page 152 - the bordering National Forest is incorrectly identified as the Los Padres National Forest. It is in fact the Angeles National Forest that borders the Ritter Ranch project area. The Los Padres is on the west side of Interstate 5.

8) The document does not adequately discuss the impacts to Bouquet Canyon Road from the proposed development. Bouquet Canyon is already widely used as a commute road by the residents of Leona Valley and to assume that the residents in the western portion of the development (Planning areas 1 & 2) will drive all the way to Highway 14 rather than use Bouquet Canyon is unrealistic. On page 218, Table 22 states that there will be no increase in the daily traffic volumes on Bouquet Canyon in the year 2010 as a result of the development, yet the document states that offsite improvements to Bouquet will require it to be increased to 4 lanes. Why will improvements be required if the project will not result in increase traffic volume? The document does not consider that Bouquet Canyon becomes a very narrow windy road for most of its length and that it is bounded by National Forest Land. No improvement to Bouquet Canyon through the National Forest can occur without a document that meets the requirements of the National Environmental Policy Act.

Thank you for the opportunity to provide comments.

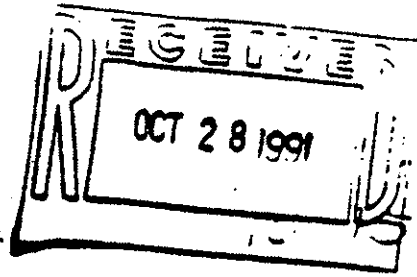
Sincerely,


MIKE WICKMAN
District Ranger

MS:sj

Response No. 39
U.S. Forest Service
Mr. Mike Wickman

- 39a. The trails shown on the Exhibits in the EIR and Specific Plan generally represent existing jeep trails on the project site. However, if these trails are in conflict with the Management Plan of the adjacent Forest, they may be modified to eliminate connections to the Forest Service property. A mitigation measure may be inserted in the Draft EIR which would require that the Trails Plan for the project be consistent with any trails plan or recreation management plan that may be prepared for the portion of the Angeles National Forest abutting the project area.
- 39b. Your comment has been acknowledged. Mitigation Measure No. 43 will be expanded to reflect that special gates and/or barriers will be installed and maintained to preclude the use of motorized vehicles in the open space areas.
- 39c. Your comment has been acknowledged and the text will be corrected in the Final EIR.
- 39d. Your comment has been acknowledged, and the mitigation measures will be amended to reflect this species.
- 39e. Your comment has been acknowledged, and the mitigation measure for the protection of Maple Canyon Springs will be revised. Protection might best be provided by ensuring that trails do not lead to the vicinity of the spring, and that the area remain as remote as possible.
- 39f. Biological surveys performed on the site have determined that the *Opuntia basilaris* species located on the site is not the *brachyclada* variety.
- 39g. Your comment has been acknowledged, and the text will be corrected in the Final EIR.
- 39h. Your comment has been acknowledged. The impact to traffic volumes on Bouquet Canyon Road have been reviewed in the Draft EIR. The City's Traffic Model suggests that future traffic volumes can be accommodated on the existing roadway. At this time, it is not anticipated that development of the Ritter Ranch project will require widening of Bouquet Canyon Road within that portion of the roadway adjacent to the Forest.



To whom it may concern,

I'm writing in favor of Riter Ranch project. I think this project would be a positive move for the Antelope Valley. There are alot of different activities offered & everyone will find their favorite things. It's a project not just for the young and it promotes good health. I would be proud to have something like Riter Ranch in this valley.

Judy Timmer
Palm Springs, CA

Response No. 40
Ms. Judy Timbo

40a. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.



COMMENT NO. 41

October 14, 1991

Mr. Peter Wenner
RITTER RANCH
149 West Palmdale Blvd.
Palmdale, CA 93551

Dear Mr. Wenner,

Please feel free to use this letter as a demonstration of our support for Ritter Ranch at the public hearing, which will be held October 24, 1991.

I believe that Ritter Ranch is an excellent development project. The very thought of building new schools means employment will become available to the people of our city. The recreation facilities and parks will enable the citizens to interact with one another on a neighborhood basis.

Ritter Ranch perceives to be a beautiful, spacious community. There should be more master-planned communities such as this.

Sincerely,

WOODGATE REAL ESTATE

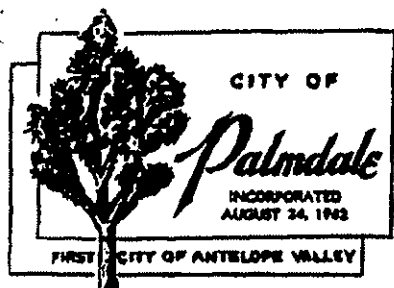
MARK W. LIEBENS
Broker/Manager

EWL/csv/547

38626 9th Street East, Palmdale, California 93550 805/266-4217 • FAX 266-3394
7141 Valjean Avenue, Van Nuys, California 91406 818/373-7005 • FAX 376-0157

Response No. 41
Woodgate Real Estate
Mr. Mark Lebens

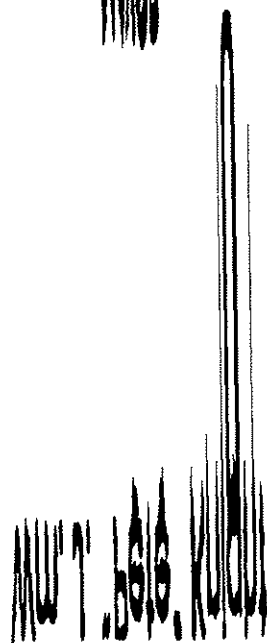
- 41a. Comment has been acknowledged, and will be taken into consideration by the City during project deliberations.

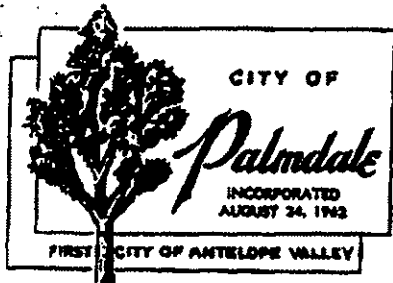


CITY OF PALMDALE

38300 NORTH SIERRA HIGHWAY, PALMDALE, CALIFORNIA 93550
AREA CODE 805/273-3162

Wm. J. "Pete" Knight





CITY OF PALMDALE

38300 NORTH SIERRA HIGHWAY, PALMDALE, CALIFORNIA 93550
AREA CODE 805/273-3162

Wm. J. "Pete" Knight
MAYOR

Joseph P. "Joe" Davies, Jr.
MAYOR PRO TEM

Janis C. Hamm
COUNCILMEMBER

James C. Ledford, Jr.
COUNCILMEMBER

James A. Root
COUNCILMEMBER

February 28, 1992

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

County Clerk
County of Los Angeles
111 North Hill Street
Los Angeles, CA 90012

Re: Notice of Determination for Environmental Impact Report
90-04 for the Ritter Ranch Specific Plan 89-02, General
Plan Amendment 91-3A and 3B, Prezone 89-12 and the
Annexation of 11,072 acres of territory into the City of
Palmdale.

Dear Sir or Madam:

Please process the attached documents with the appropriate
check attached and return verification to:

City of Palmdale
Planning Department
38306 9th Street East
Palmdale, CA 93550
Attn: Sonja Wilson

Thank you for your cooperation.

Very truly yours,

Sonja Wilson
Sonja Wilson, Senior Planner

SW/cs/wp/8157
Attachments

CHO 1676

ORIGINAL REC'D
L.A. COUNTY CLERK

NOTICE OF DETERMINATION

MAR 06 1992

TO: County Clerk
County of Los Angeles
111 North Hill Street
Los Angeles, CA 90012

FROM: City of Palmdale
Planning Department
38306 9th Street East
Palmdale, CA 93550

Applicant: Ritter Park Associates

Address: 849 West Palmdale Boulevard
Palmdale, CA 93551

Case: EIR 90-04 (Ritter Ranch Specific Plan EIR)

Description of Project: Specific Plan 89-02, General Plan Amendment 91-3A and 3B, Prezone 89-12 and the Annexation of 11,072 acres of territory into the City of Palmdale: The Ritter Ranch Specific Plan allows for the development of 7200 residential units, 73 acres of commercial uses, seven schools, and a number of parks on approximately 10,625 acres. Of that acreage, the Specific Plan sets aside approximately 7,500 acres of open space. The General Plan Amendments and Prezone support the proposed Specific Plan. The annexation covers an additional 447 acres adjacent to the Specific Plan Area; however, no development is proposed on these parcels at this time.


Location: The project is generally bounded by Elizabeth Lake Road to the north, the alignment of Avenue T and the Sierra Pelona ridgeline to the south, the alignment of 40th Street West to the east and Bouquet Canyon Road to the west.

The Environmental Impact Report was certified by the City Council of the City of Palmdale on February 27, 1992. It has been determined that the project will have a significant effect on the environment in the following areas: significant landform modifications, seismically induced ground shaking, air quality impacts, traffic and circulation impacts, impacts to library services, impacts to radio communications, impacts to maintenance facilities, alteration of natural drainage patterns, loss of biological resources, cumulative increase in noise levels, impacts to aesthetics, loss of existing open space, and individual and cumulative impacts to police services, schools, water, and solid waste service. The City Council adopted a Statement of Overriding Considerations for the project in compliance with the provisions of the California

NOD EIR 90-04
Page 2

The EIR is on file and available for review at the City of Palmdale, Planning Department, 38306 9th Street East, Palmdale, California 93550

Dated: February 28, 1992



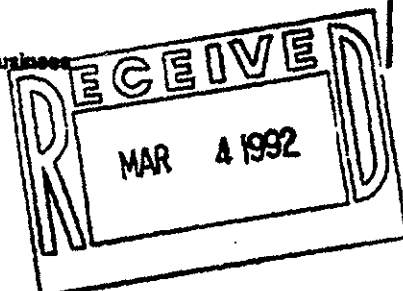
Molly Bugh, Director of Planning
City of Palmdale

wp4638

W. Bugh

United States Postal Service

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PENALTY FOR PRIVATE
USE, \$300

Print your name, address and ZIP Code here

FIR 90-041274
 Olan 89-02
 91-3A-3B
 89-12

City of Palmdale
 Planning Dept.
 38306 9th Street East
 Palmdale, Ca 93550
 Attn: Lynn O'Brien

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece next to the article number.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

County Clerk
 County of Los Angeles
 1111 West 1st Street
 Los Angeles, CA 90012

4a. Article Number

1676

4b. Service Type

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☒ Return Receipt for Merchandise

7. Date of Delivery

MAR 7 2 1992

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, October 1990

U.S. GPO: 1990-573-001

DOMESTIC RETURN RECEIPT

EXHIBIT F

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 4, LANCASTER AND LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 34, DESERT VIEW HIGHLANDS PROPOSED CONSTRUCTION OF WELLS, CHLORINATION STATION, FOREBAY, BOOSTER PUMPING STATIONS AND WATER TRANSMISSION FACILITIES IN THE WEST LANCASTER/PALMDALE AREA

NEGATIVE DECLARATION

1. Location and Brief Description of Project

The location is defined as the geographical area of West Lancaster/Palmdale specifically shown on Exhibit "A" attached.

The project consists of the following: Drilling and equipping three 2,000 gallon per minute (gpm) wells, installing a chlorination station, constructing a 2.4 million gallon forebay and constructing a 20,000 gpm booster pumping station in the vicinity of 70th Street West and Avenue G-12; constructing a 20,000 gpm booster pumping station and an AVEK metering station in the vicinity of Avenue L-12 and 60th Street West; installing a 48-inch diameter water transmission main (AVEK South Feeder Relief) in 50th Street West, Avenue N-8, 30th Street West and Avenue O-8; constructing a 25 cubic feet per second (cfs) AVEK turnout and a 20,000 gpm booster pumping station in the vicinity of Avenue O-8 and 25th Street West and installing a 36-inch diameter water transmission main in 25th Street West from Avenue O-8 to Elizabeth Lake Road; constructing a 20,000 gpm booster pumping station in the vicinity of 25th Street West and Elizabeth Lake Road, installing a 36-inch diameter water transmission main in Elizabeth Lake Road from 25th Street West to Bridge Road, installing a 30-inch diameter water transmission main in Elizabeth Lake Road from Bridge Road to Ranch Center Drive and installing a 20-inch diameter water transmission main in Elizabeth Lake road from Ranch Center Drive to Bouquet Canyon Road (80th Street West).

2. Mitigation Measure Included in the Project to Avoid Potentially Significant Effects

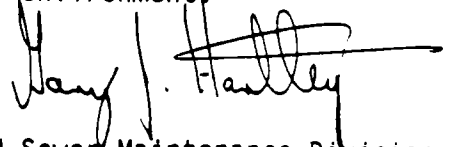
The water mains will be installed below ground and within public road rights of way or utility easements. All construction within road rights of way will comply with Department of Public Works Road Standards. The forebay and well sites will be enclosed by block walls and landscaped with trees and shrubs to mitigate any noise and visual or aesthetic effects. To further eliminate noise from electric motors, all booster pumps will be housed in concrete block structures. The 2.4 million gallon forebay will be partially buried to reduce its height. These facilities will benefit Los Angeles County Waterworks Districts Nos. 4 and 34 in that they will provide an emergency water supply to the proposed Ritter Ranch development when an interruption of State Project water occurs and will provide additional capacity to the west Lancaster area during periods of peak demand.

3. Finding of No Significant Effect

Based on the enclosed Initial Study, it has been determined that this project will not have a significant effect on the environment.

Enclosure: Initial Study

Prepared By:

A handwritten signature in black ink, appearing to read "Gary J. Hanley", with a long horizontal flourish extending to the right.

Waterworks and Sewer Maintenance Division
Department of Public Works

INITIAL STUDY BY LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 4, LANCASTER AND LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 34, DESERT VIEW HIGHLANDS, PROPOSED CONSTRUCTION OF WELLS, CHLORINATION STATION, FOREBAY, BOOSTER PUMPING STATIONS AND WATER TRANSMISSION FACILITIES IN THE WEST LANCASTER/PALMDALE AREA

This initial study was prepared by the Department of Public Works, Waterworks and Sewer Maintenance Division, pursuant to the California Environmental Quality Act of 1970, as amended (Division 13, California Public Resources Code) and the "State Environmental Impact Report Guidelines" (Division 6, California Administrative Code), and the County of Los Angeles and Special Districts (under the Board of Supervisors) Environmental Document Reporting Procedures and Guidelines as latest adopted.

1. Location and Description of Project

The location is defined as the geographical area of West Lancaster/Palmdale as specifically shown on Exhibit "A".

The project consists of the following: Drilling and equipping three 2,000 gallon per minute (gpm) wells, installing a chlorination station, constructing a 2.4 million gallon forebay and constructing a 20,000 gpm booster pumping station in the vicinity of 70th Street West and Avenue G-12; constructing a 20,000 gpm booster pumping station and an AVEK metering station in the vicinity of Avenue L-12 and 60th Street West; installing a 48-inch diameter water transmission main (AVEK South Feeder Relief) in 50th Street West, Avenue N-8, 30th Street West and Avenue O-8; constructing a 25 cubic feet per second (cfs) AVEK turnout and a 20,000 gpm booster pumping station in the vicinity of Avenue O-8 and 25th Street West and installing a 36-inch diameter water transmission main in 25th Street West from Avenue O-8 to Elizabeth Lake Road; constructing a 20,000 gpm booster pumping station in the vicinity of 25th Street West and Elizabeth Lake Road, installing a 36-inch diameter water transmission main in Elizabeth Lake Road from 25th Street West to Bridge Road, installing a 30-inch diameter water transmission main in Elizabeth Lake Road from Bridge Road to Ranch Center Drive and installing a 20-inch diameter water transmission main in Elizabeth Lake road from Ranch Center Drive to Bouquet Canyon Road (80th Street West).

These water system facilities will be constructed in accordance with the approved plans and specifications of the Los Angeles County Waterworks Districts and upon completion dedicated to the Waterworks Districts.

2. Compatibility with General Plan

The project is located within the Cities of Lancaster and Palmdale and unincorporated County territory and is compatible with the adopted General Plans for the area.

The proposed well sites, the chlorination site, the forebay site, and the booster pumping station sites are all presently vacant. The water mains to be constructed are within existing dedicated or future roadways, except for the water mains located within the site areas mentioned above.

This project and subsequent development of land which will be served by these off-site water facilities will be reviewed by the appropriate local planning agencies when such development plans are submitted by developers of the land.

3. Environmental Setting

The properties which will accommodate the wells, booster pumping stations and reservoir are undeveloped. The water mains will be installed within existing or future road rights of way or water main easements. The land along most of these rights of way is being developed for urban uses.

The surface layer of soil is a sandy loam to silty clay loam and is classified by the U.S. Department of Agriculture to be marginal for farming but suitable for limited range land.

Wildlife native to this area are quail, pheasants, chukars and rabbits; however, due to urban encroachment, there does not appear to be much of this wildlife.

The project site does not have any known historical, geological, or archaeological attributes which may be of interest to the public.

The area immediately surrounding the 70th Street West and Avenue G-12 site, the 25th Street West and Avenue O-8 site and the 25th Street West and Elizabeth Lake Road site are all undeveloped and similar in nature. At 60th Street West and Avenue L-12, the new facilities will be incorporated within existing Waterwork's property.

4. Identification of Environmental Effects

This project does not appear to have a significant effect on the environment because it does not appear to:

- a. Conflict with adopted environmental plans and goals of the community.
- b. Have a substantial, demonstrable negative aesthetic effect;
- c. Substantially affect a rare or endangered species of animal or plant or the habitat of the species;
- d. Interfere substantially with the movement of any resident fish or wildlife species, or migratory fish or wildlife species;
- e. Breach published national, state, or local standards relating to solid waste or litter control;
- f. Substantially degrade water quality;
- g. Contaminate a public water supply;

- h. Substantially degrade or deplete ground water resources; Waterworks District No. 34 plans to continue to rely on AVEK water to meet its water requirements for the bulk of the District's service area. Additionally, the County has an aggressive program within Waterworks District No. 4, Lancaster, to reduce the amount of well water used in favor of increasing its use of AVEK water. This practice will allow for the natural replenishment of the groundwater basin. Lastly, a program to recharge the groundwater basin with surplus AVEK water is currently being evaluated by the County.
- i. Interfere substantially with ground water recharge;
- j. Disrupt or adversely affect prehistoric or historic archaeological sites or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as part of a scientific study of the site;
- k. Induce substantial growth or concentration of population;
- l. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system;
- m. Displace a large number of people;
- n. Encourage activities which result in the use of large amounts of fuel, water or energy;
- o. Use fuel, water or energy in a wasteful manner;
- p. Increase substantially the ambient noise levels for adjoining areas;
- q. Cause substantial flooding, erosion or siltation;
- r. Expose people or structures to major geological hazards;
- s. Extend a sewer trunk line with capacity to serve new development;
- t. Substantially diminish habitat for fish, wildlife or plants;
- u. Disrupt or divide the physical arrangement of an established community;
- v. Create a potential public health or safety hazard; or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected;
- w. Conflict with established recreational, educational, religious or scientific uses of the area;
- x. Violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations;

- y. Convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land;
- z. Interfere with emergency response plans or emergency evacuation.

5. Discussion on Ways to Mitigate Significant Effects

The well sites, the chlorination site, the forebay site, the pump station site and the adjacent areas are undeveloped. These proposed off-site water system facilities are necessary to provide an adequate water supply to accommodate development of the surrounding area. To mitigate any noise, visual or aesthetic effect of the pumping stations, the sites will be enclosed by concrete block walls and landscaped with trees and shrubs. The forebay will be partially buried to reduce its height and landscaping will be used to further reduce the visual or aesthetic impacts. Site plans for these water system facilities will be submitted to the appropriate local planning agencies for their approval and conformance to the existing community characteristics. Dust control will be provided during construction by watering or other appropriate methods.

No significant effects were identified in our study of environmental effects.

6. Initial Study Preparation

This initial study was prepared under the supervision of Mr. Gary J. Hartley, Assistant Deputy Director, 900 South Fremont Avenue, 9th Floor, Alhambra, California 91803, telephone (818) 458-7115. Pursuant to the County and Special Districts Guidelines, this study was made with the use of enclosed Initial Study Questionnaire.

Enclosure: Questionnaire

LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 4, LANCASTER AND
LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 34, DESERT VIEW HIGHLANDS

INITIAL STUDY QUESTIONNAIRE

Project: Waterworks Districts Nos. 4, Lancaster and
34, Desert View Highlands

Thomas Guide Pages: 159 and 171

U. S. G. S. Quad: Del Sur, Lancaster West, Ritter Ridge

Date: 1958

A. GENERAL INFORMATION

1. Name and address of owner: (Proposed) Los Angeles County Waterworks District No. 4, Lancaster and Los Angeles County Waterworks District No. 34, Desert View Highlands, 900 South Fremont Avenue, Alhambra, California 91803.
2. Name, address and telephone number of owner's representative or project sponsor: Gary J. Hartley, Assistant Deputy Director, Department of Public Works, Waterworks and Sewer Maintenance Division, 900 South Fremont Avenue, Alhambra, California 91803 for Los Angeles County Waterworks District No. 34, Desert View Highlands, Telephone: (818) 458-7115.
3. Street location of project: The project site is shown on Exhibit "A".
4. Present use of site: Vacant property.
5. Present zoning: A2-1.
6. Brief project description (proposed use): Acquisition of property; site development; drill and equip three water wells; construct four 20,000 gpm booster pumping stations; construct a 2.4 million gallon forebay; construct a turnout for the Antelope Valley-East Kern Water Agency; construct approximately 60,000 lineal feet of 20 to 48-inch diameter water transmission main and all necessary appurtenances.
7. Gross Area of project site: Unknown.
8. Number and types of units (residential): N/A
9. Number and floor area of building (non-residential): N/A
10. Number of floors: N/A
11. Number of employees and shifts (non-residential): No one will be assigned, reside on or work out of any of these facilities. The facilities will be serviced on an as needed basis by District employees and contractors.

12. Maximum number per shift (non-residential): N/A
13. Operating hours (non-residential): The water system facilities are fully automated and have the capability to operate 24 hours per day.
14. Area devoted to open space (exclusive of driveways, parking): N/A
15. List and describe any other related permits and other public approvals required for this project, including those required by County, regional, State and Federal Agencies. Specify the type of permit/approval, and the granting agencies. Grading and building permits will be obtained, from the Cities of Lancaster and Palmdale. A plot plan with elevations, including existing and proposed improvements, landscaping, walls and/or screening and vehicular access, will be submitted to the appropriate local planning agencies for approval.

B. ENVIRONMENTAL DATA

1. Phasing and Relationship to Other Projects

The property for the project has not yet been acquired. The engineer for the developer will submit a detailed site plan to Waterworks and the Cities of Lancaster and Palmdale. Upon approval of construction drawings; the wells, the chlorination facilities, the forebay, the pump stations, and the water mains and appurtenances will be constructed.

2. Environmental Setting - Project Site

The well sites, the chlorination site, the forebay site and the pump station sites are vacant land with no known cultural or historical aspects. The elevation of land varies from approximately 2,380 feet at the Avenue G-12 and 70th Street West site to 2,800 feet above sea level at the Elizabeth Lake Road and 25th Street West site. The soil according to the U.S. Department of Agriculture, Soil Conservation Service, is sandy loam to silty clay loam suitable for range land. Due to urban encroachment wildlife is scarce.

3. Environmental Setting - Surrounding Area

The surrounding area is primarily vacant at this time.

C. ENVIRONMENTAL QUESTIONS

1. Will the project require any grading?

Minor grading will be required.

Will the earth movement be balanced on site?

Measures will be taken to alleviate dust problems during construction. It would appear that excavated material will be spread and compacted on the site.

2. Are there any identifiable landslides or other major geologic hazards on the property (including uncompacted fill)?

No.

3. Are there any natural drainage courses, springs, ponds, etc. on property?

No.

4. The property is located within a high fire hazard area (hillside area with moderately dense vegetation)?

Yes, site will be clear of vegetation and landscaped to mitigate fire damage and soil erosion.

5. Do project operations involve the handling or storage of hazardous substances, such as oil, pesticides, chemicals or radioactive materials?

Small amount of chlorine for the chlorination of the well water. Alarm and safety equipment will be installed as part of this project. Waterworks personnel are trained to mitigate chlorine leakage problems.

6. What are the existing principal sources of noise at the project site?

None.

7. Describe the facilities and/or equipment within your project which are expected to induce noise?

Pumping the groundwater from the well through the transmission mains will be accomplished by electric motor driven pumps. The well and pump station sites will be enclosed by concrete block walls to mitigate noise problems.

8. Will the project generate dust and/or odors?

Temporarily during construction there may be some dust generated; however, measures will be taken to alleviate any dust caused by construction.

9. What provisions will be included for security within the project?

The perimeter of the wells, pump stations and storage reservoir site will be enclosed with block walls.

10. Identify, in general terms, the plants and animals of the project area. Identify the number of trees by type on the site.

Native plant cover is typical desert brush and grasses. There are no trees on any of the sites. Wildlife native to this area is scarce due to existing residential developments in the surrounding area.

11. Will the project displace any people?

No.

12. What energy-conserving designs or materials will the proposed project utilize?

Telemetering the facilities will contribute to the efficient operation of the facilities.

13. Are there any parks (regional, county, local) located within a one mile radius of the project? If so, please identify:

None.

14. What school district serves the property?

Westside School District and Antelope Valley Union High School.

15. If a residential development, are existing school facilities adequate to meet the anticipated increase in attendance as a result of the project? (This information should be verified by the school district involved if the project consists of 5 or more residential lots. Verification should be either in writing or by identifying person contacted at district).

N/A

16. What is the distance to the nearest sheriff station?

Sheriff Station is approximately six miles east.

17. What is the distance to the nearest fire station?

Approximately six miles south and east of project.

18. Are sewers presently available to serve the project site?

N/A

19. Are existing sewers capable of meeting the anticipated increase in demand without modification?

N/A

20. If sewers are not available, what type of sewage disposal system will be utilized?

N/A.

21. What is the major access to the well pump station and reservoir sites?

Access to all these sites will be from adjacent public streets.

22. How will domestic water be provided (water district, private wells)?

Los Angeles County Waterworks District No. 4, Lancaster and Los Angeles County Waterworks District No. 34, Desert View Highlands.

Will the water supply be sufficient to serve the proposed project?

Yes.

23. Can the existing water system provide for fire protection in accordance with Fire Department requirements?

Yes.

24. Is natural gas available?

N/A.

25. Is electricity available?

Yes.

26. What is the distance to the nearest commercial business area?

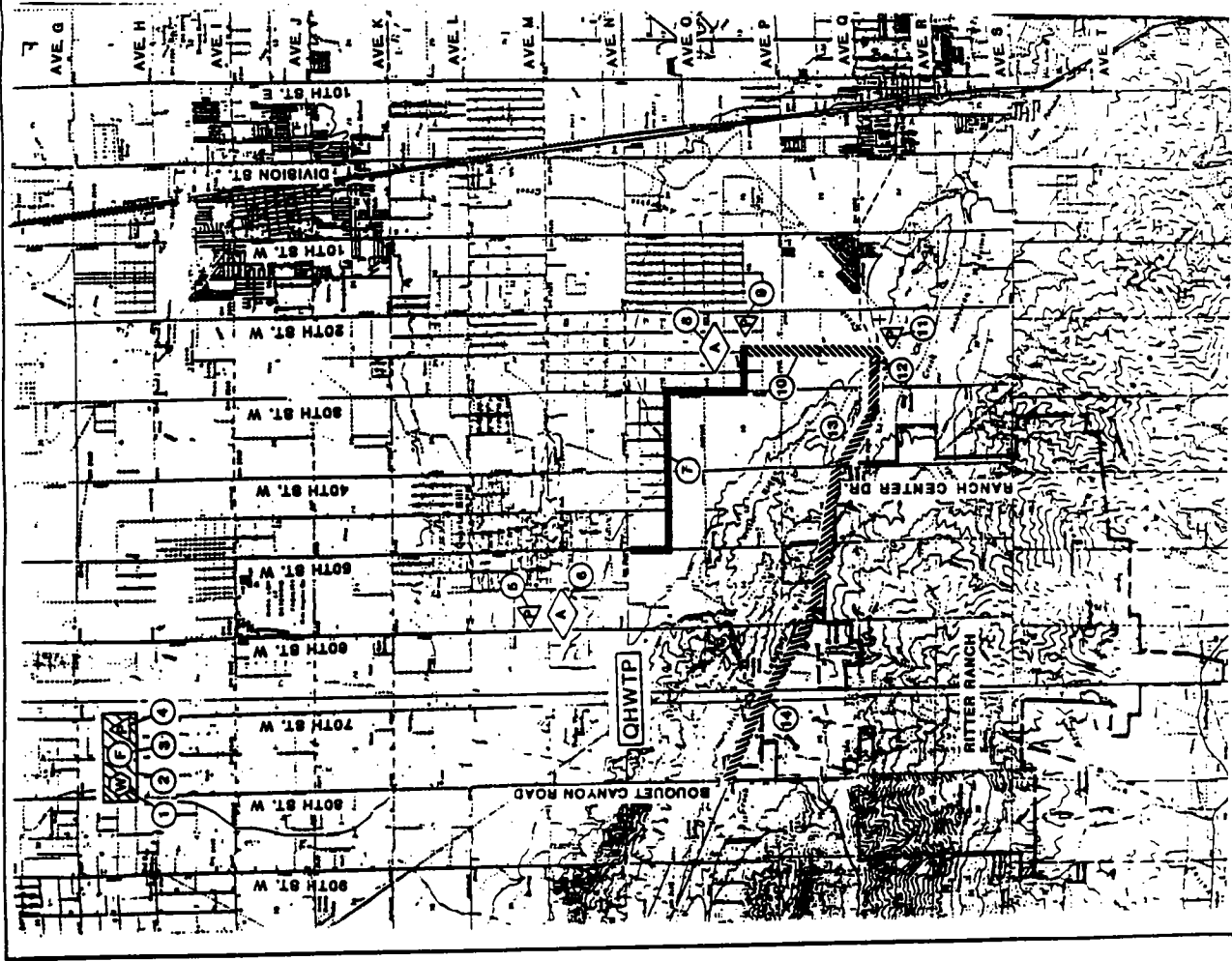
Approximately 6 to 10 miles to the commercial centers of Lancaster and Palmdale.

CERTIFICATION: I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: September 7, 1990


(signature)

For Waterworks Districts



LEGEND

- 2855-FT SERVICE ZONE**
- 1 3-2,000 GPM WELLS AND DISCHARGE MAIN
 - 2 CHLORINATION FACILITIES
 - 3 2.4 MG FOREBAY
 - 4 20,000 GPM PUMPING STATION (PLUS STANDBY CAPACITY) IN VICINITY OF G1270W
- AVEK FEEDER, 2819-FT INCH**
- 5 DISTRICT NO. 4, 20,000 GPM PUMPING STATION (PLUS STANDBY CAPACITY) IN VICINITY OF L1260W
 - 6 AVEK METERING STATION IN VICINITY OF L1260W
 - 7 AVEK 48-INCH SOUTH FEEDER RELIEF LINE, 30TH STREET WEST, AVENUE N-4, 30TH STREET WEST AND AVENUE O-8
 - 8 AVEK TURNOUT, 25.0 CFS AVENUE O-8 AND 25TH STREET WEST
- 2811-FT SERVICE ZONE**
- 9 20,000 GPM PUMPING STATION (PLUS STANDBY CAPACITY) IN VICINITY OF O-8 AND 25TH STREET
 - 10 36-INCH WATER MAIN, 25TH STREET WEST, AVENUE O-8 TO ELIZABETH LAKE ROAD
- 3240-FT SERVICE ZONE**
- 11 20,000 GPM PUMPING STATION (PLUS STANDBY CAPACITY) IN VICINITY OF 25TH STREET WEST AND ELIZABETH LAKE ROAD
 - 12 36-INCH WATER MAIN, ELIZABETH LAKE ROAD, 25TH STREET WEST TO BRIDGE ROAD
 - 13 30-INCH WATER MAIN, ELIZABETH LAKE ROAD, BRIDGE ROAD TO RANCH CENTER DRIVE
 - 14 20-INCH WATER MAIN, ELIZABETH LAKE ROAD, RANCH CENTER DRIVE TO BOUQUET CANYON ROAD

SYMBOLS

- AVEK SOUTH FEEDER RELIEF LINE
- ▨ DISTRICT NO. 34 MAIN
- ◊ AVEK TURNOUT
- ⊙ WELL
- ⊖ FOREBAY
- ⚙ PUMPING STATION

NO SCALE

LACWWD NOS. 4 AND 34	
NEGATIVE DECLARATION	
RITTER RANCH	
OFFSITE WATER SYSTEM	
IMPROVEMENTS	
BROCKMEIER CONSULTING ENGINEERS, INC. SANTA MONICA, CALIFORNIA	DATE AUG. 1980
	FIGURE A



COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

February 28, 1991

IN REPLY PLEASE
REFER TO FILE

W-0

Mr. Robert Mallicoat
Leona Valley Town Council
Post Office Box 795
Leona Valley, California 93551

Dear Mr. Mallicoat:

NEGATIVE DECLARATION FOR CONSTRUCTION OF WATER SYSTEM FACILITIES FOR LOS ANGELES COUNTY WATERWORKS DISTRICTS NOS. 4, LANCASTER AND 34, DESERT VIEW HIGHLANDS

This letter is being written to address the comments contained in your October 21, 1990 letter, pertaining to the subject Negative Declaration. Several of your comments do not pertain to the proposed water system project, but to a much more extensive project commonly referred to as "Ritter Ranch". Your concerns with respect to the "Ritter Ranch" project will be addressed in the Ritter Ranch Environmental Impact Report (EIR) currently being prepared by the City of Palmdale.

The District's responses to your comments concerning the proposed water system facilities in the Leona Valley are as follows:

1. You expressed concern that the water transmission main in Elizabeth Lake Road will result in straightening of the road and "cut through at least 16 private ranches of large acreage". Since the water transmission main as proposed would be installed within existing road rights-of-way, we fail to see how this project could have that effect. Any realignment of the existing roadway would be addressed in the Ritter Ranch EIR.
2. You express concerns about potential loss to flora, fauna, aesthetics and historical interests. Again, the water transmission main would be located within existing road rights-of-way which would not impact any of these items.
3. You contend that the project will deplete the groundwater available to the residents of the Leona Valley. The purpose of locating the proposed wells in the main Antelope Valley Groundwater Basin is to provide an emergency source of water for the entire west Lancaster/Palmdale area

Mr. Robert Mallicoat
February 28, 1991
Page 2

in case AVEK water is temporarily unavailable. Any pumping from the proposed wells would not impact well production in the Leona Valley since the Leona Valley aquifer is separated from the main Antelope Valley aquifer by the San Andreas Rift Zone.

4. You state that groundwater recharge with AVEK water will result in adjudication of the basin. Waterworks is interested in maximizing the available water in the groundwater basin and thus has begun to evaluate the feasibility and desirability of various methods of artificially replenishing the groundwater basin. With the use of prudent water management practices to insure an adequate supply of groundwater for everyone, we do not see the need to adjudicate the basin. Additionally, Waterworks is increasing the use of AVEK water as the primary supply of water for all its customers, thereby, minimizing the need to pump from the groundwater basin.
5. The Negative Declaration was made available to all parties who had previously expressed an interest in reviewing Waterworks environmental documents and to the general public through both the Lancaster and Palmdale Public Libraries. Additionally, public notices were placed in the Antelope Valley Press to inform interested parties of the availability of this document for review. To insure your receiving such documents in the future the Leona Valley Town Council has been placed on the Waterworks mailing list to receive all future environmental documents and reports concerning water issues.

Thank for expressing your concerns, if you have any questions, please contact Mr. George Papik at (818) 458-7149.

Very truly yours,

T. A. TIDEMANSON
Director of Public Works


GARY J. HARTLEY
Assistant Deputy Director
Waterworks and Sewer Maintenance Division

GMP:jsk
WW3552

cc: Michael D. Antonovich
Palmdale - Clyde Evans - Planning Department

Leona Valley Town Council

P. O. Box 795
Leona Valley, California 93551

21 October 1990

Mr. Gary J. Hartley
Assistant Deputy Director
Department of Public Works
Waterworks and Sewer Maintenance Division
900 South Fremont Avenue
Alhambra, California 91803

SUBJECT: WATERWORKS DISTRICTS NOS. 4, LANCASTER AND 34, DESERT VIEW HIGHLANDS (RITTER RANCH OFFSITE WATER SYSTEM IMPROVEMENTS)

Dear Mr. Hartley:

After reviewing the initial study of the subject project, the Leona Valley Town Council finds that a negative declaration on the subject project to be inappropriate and based on gross errors which must have been inadvertently overlooked by your department during the study process. May we, therefore, point out a few key issues which should certainly meet the criteria to warrant an Environmental Impact Report. The area of greatest concern and impact to Leona Valley is the placement of a water transmission main in Elizabeth Lake Road west to Bouquet Canyon.

- The project is not compatible with the Antelope Valley Areawide General Plan for the unincorporated areas such as Leona Valley, Green Valley, and Bouquet Canyon.
- If Elizabeth Lake Road is to be "straightened" concurrent with the subject project, it will cut through at least 16 private ranches of large acreage. These ranchers have expressed no intention of subdividing or urbanizing. Therefore, this study's statement that the land affected is already being developed for urban uses is incorrect. It is also incorrect in stating that the area is undeveloped.
- The site areas including Leona Valley are similar in nature. Elizabeth Lake Road cuts through a narrow valley with high cliffs and steep slopes, rich foliage, and is at least 1000 ft higher in elevation than the desert floor.
- The wildlife native to the Elizabeth Lake Road area is far more populated than your study indicated. Since the road currently follows the Amargosa Creek, it is habitat and haven to a multitude of animals and fowl. Your study states that urban encroachment has displaced most of the wildlife - this is true, however, the wildlife that has been driven from the desert floor has sought refuge along Elizabeth Lake Road area and the surrounding open spaces in Leona Valley.

Leona Valley Town Council

P. O. Box 795
Leona Valley, California 93551

- Elizabeth Lake Road is a scenic corridor and rich in historical interest. i.e., it was a major route to the Butterfield Stage Lines. Antelope Valley College conducts regular field trips to the area and has retrieved numerous important artifacts of geologic and archaeological interest.
- Contrary to the study's findings, the area has great interest to the public, as evidenced by this community's efforts to ensure its preservation by developing with Supervisor Antonovich's office, a Community Standards District.
- This project is in conflict with the Leona Valley Community-supported Standards which protect the environment and ensure that development proceed compatibly with the existing community.
- Aesthetically, this project and the resultant development projects will have a severe effect on the area.
- The Council seriously questions the data used by Brockmeier Consulting Engineers, Inc. to determine that this project in its entirety and final implementation would not deplete ground water resources. We propose that the data may be outdated and not reflective of current conditions in this basin. Ground water levels are dropping drastically and the drought obviously has not produced required recharge. The Council suggests that Brockmeier conduct whatever experimentation is needed to gather current and correct data upon which your department may rely in order to make a wise and prudent decision on this project and associated projects.
- 50% of Leona Valley is dependent upon private wells for consumption and agricultural uses. We know that your agency takes very seriously its responsibility to the well owners in the Antelope Valley and the unincorporated communities on the West, to ensure fair distribution of ground water. However, it appears to the Council that Brockmeier has failed to address this concern. The consultant should be aware of the evidence that this concern is not warranted based upon some evidence that a disproportionate amount of ground water will not be distributed by the Ranch project leaving current well owners high and dry.
- The Council opposes adjudication of the ground water through recharge with AVEK water. This obviously would place your agency in a difficult position with the well owners as they will be fighting for their very survival. The Council has been made aware of serious opposition should events take place that would lead to capping and regulating of private wells.
- Your study indicated that this project would not induce substantial growth. This is incorrect. The main purpose of this project is to provide water to the River Ranch development project which would increase the population of the Leona Valley area from 500 families to at least 8,000 families. That's a 1600% increase

Leona Valley Town Council

P. O. Box 795
Leona Valley, California 93551

in population! Hardly a negative impact.

- This project and the resultant Ritter Ranch development proposes to increase daily vehicular traffic to 47,000 trips per day - enough to warrant the expansion of the current two-lane Elizabeth Lake Road to a major 4/6/8 lane thoroughfare. Again, hardly a negative impact.
- This project will provide water to not only an 8,000 family development, but also for elaborate landscaping, golf courses, and other uses considered to be frivolous and wasteful in this day of responsible usage and management of our water resources.
- The proposed water main along Elizabeth Lake Road lies in the major San Andreas rift zone. Yet your study indicates there would be no exposure to geologic hazard. When the San Andreas erupts, which experts predict, the project would obviously suffer damage cutting off water to thousands of residents. This oversight needs to be rectified as we are sure you agree, the San Andreas rift zone and numerous faults in the site area are critical factors not to be ignored.
- This project and resultant developments will produce a degradation in air quality as the narrow Leona Valley cannot tolerate the pollutants caused by the projected 25,000 inhabitants and 47,000 vehicular trips per day.
- This project and resultant development will disrupt and divide the physical arrangement and lifestyles of the established community of Leona Valley, Bouquet Canyon, Green Valley, Elizabeth Lake and Lake Hughes. Such urban encroachment is not compatible with these rural communities.
- This project and resultant development threatens the health and safety of the established rural communities in the project's area. Most residents live on 2.5 acre and are vulnerable because of their distance to neighbors, lack of streetlights, etc. They are vulnerable to robbery, vandalism, and assault which is a major offense in the area. Compared to the crime statistics out of Palmdale and Lancaster, Leona Valley is relatively crime-free. We must anticipate a serious crime impact if the project and resultant development go through. (We've recently learned that Palmdale's sheriff's protection budget has increased from approximately one million to five million dollars per year.)
- This project and resultant development will convert agriculturally zoned property to high density land uses and threaten the survivability of the established farms and farms. 8,000 sq ft "city-sized" lots are not compatible with U-Pick orchards, horse ranches, or other animal related activities that this rural community enjoys. The impact is significant and should be addressed.

Leona Valley Town Council


P. O. Box 795
Leona Valley, California 93551

In summation, the Town Council recommends that for the above reasons, your department reconsider its negative impact findings for the subject project. In the interest of responsibility to the public it is imperative that when you re-evaluate this project for impact, that the purpose of the project be included in all impact analyses; that is, that you include the impact of the River Ranch and other such developments that are dependent on your water project.

One final comment, this statement is being sent to you at a very late date considering when the document was prepared. The reason is that this community was not notified by your office about this project even though it portends significant ramifications to our community, our livelihood, and our welfare. Nor, to the best of our knowledge, was this document available to the public in the Antelope Valley area. The Town Council would appreciate notification by your office in a timely fashion of any issues that would affect our community. Supervisor Michael Antonovich shares our community concern and desire to participate in Leona Valley's future. At his direction, this community elected a Town Council to represent the residents as liaison with governmental agencies regarding issues of concern. It's a good system. We are certain your department will also find the Town Council a good focal point whenever you are planning projects which would impact Leona Valley.

Looking forward to hearing from your office. Our next Town Meeting is November 12, 1990. We anxiously await a response to this letter by November 11 so that we can report to the community.

Sincerely,



Leona Valley Town Council
Robert M. [unclear]



Mary Ann Floyd, Community Relations

Leona Valley Town Council

P. O. Box 95
Leona Valley, California 93551

Andovich

Planning Department

Leona Valley Town Council

Plan. Miss.

Robert E. Adams

Hard. LA County Planning

LA County Community Planning

Attn: Ms. Ruth Benell

Valley Press, Attn: Harvey Drut

Daily News, Attn: Karen Mashiro

Attn: John Chandler



COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

February 28, 1991

IN REPLY PLEASE
REFER TO FILE

W-0

Mr. Clyde E. Evans
Director of Planning
City of Palmdale
38300 North Sierra Highway
Palmdale, California 93550

Dear Mr. Evans:

NEGATIVE DECLARATION FOR CONSTRUCTION OF WATER SYSTEM
FACILITIES FOR LOS ANGELES COUNTY WATERWORKS DISTRICTS
NOS. 4, LANCASTER AND 34, DESERT VIEW HIGHLANDS

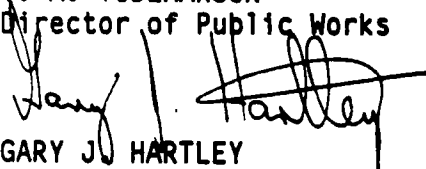
We certainly agree that the appropriate forum to discuss mitigation of the cumulative effects of the growth resulting from the various proposed projects is in the Environmental Impact Reports for those projects. We look forward to reviewing the Environmental Impact Reports for the various projects as they become available.

Since this project is the result of, not the cause of, the Ritter Ranch, City Ranch, Assessment District No. 90-1 and other proposed projects we cannot agree that the water system is growth inducing. If it were not for the various projects mentioned, the water system improvements discussed in the Negative Declaration would not be necessary and hence would never have been proposed. If these developments are not approved, the water delivery system evaluated in our Negative Declaration will not be constructed. We, therefore, will allow the Negative Declaration to stand as written.

Thank you for bringing your concerns to our attention.

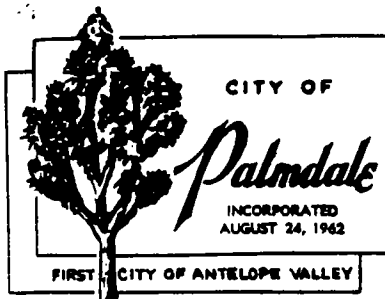
Very truly yours,

T. A. TIDEMANSON
Director of Public Works


GARY J. HARTLEY
Assistant Deputy Director
Waterworks and Sewer Maintenance Division

GMP:jsk
WW3746

h/k
80.20.1



CITY OF PALMDALE

38300 NORTH SIERRA HIGHWAY, PALMDALE, CALIFORNIA 93550
AREA CODE 805/273-3162

Wm. J. "Pete" Knight
MAYOR

Joseph P. "Joe" Davies, Jr.
MAYOR PRO TEM

Janis C. Hamm
COUNCILMEMBER

James C. Ledford, Jr.
COUNCILMEMBER

James A. Root
COUNCILMEMBER

January 21, 1991

Mr. Gary J. Hartley
County of Los Angeles
Department of Public Works
900 South Fremont Avenue
Alhambra, CA 91803-1331

**Re: Negative Declaration for Construction of Water System
Facilities for Los Angeles County Waterworks Districts
No. 4--Lancaster, and No. 34--Desert View (Ritter Ranch
Facilities)**

Dear Mr. Hartley:

This is in response to the above-referenced Negative Declaration distributed by your office on September 10, 1990. The project description is in conformance with the off-site water delivery proposal submitted to us by the Ritter Ranch Specific Plan project proponents. Staff does, however, feel that the water delivery system evaluated in this negative declaration will serve as a significant inducement to growth in the southwestern portion of the Antelope Valley and Leona Valley. Therefore, the negative declaration is incorrect in its appraisal of Environmental Effects item 4.k. (Induce substantial growth or concentration of population). The conclusion of the initial study should have been to require mitigation to alleviate the impacts associated with the growth facilitated by the proposed water facilities.

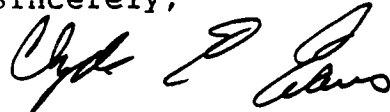
The City of Palmdale, through our review of the proposed project, is addressing the issue of inducements to growth. We have preliminarily determined that construction of the project and associated infrastructure will contribute substantially to

Ltr to G. Hartley
January 21, 1991
Page 2

additional regional growth. The Environmental Impact Reports currently being prepared for the Ritter Ranch, City Ranch and Assessment District 90-1 projects will all provide mitigation for growth-related impacts impinging on this area. Copies of these documents will be transmitted to you for review within the next few months.

If you have any questions concerning these comments, please contact Laurie Lile, Associate Planner, at (805) 272-9613.

Sincerely,



Clyde E. Evans
Director of Planning

CEE/lkl/wp5528

cc: Sonja Wilson



COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

February 28, 1991

IN REPLY PLEASE
REFER TO FILE

W-0

Ms. Susan J. Barnett
Environmental Coordinator
Department of Community Development
City of Lancaster
44933 North Fern Avenue
Lancaster, California 93534

Dear Ms. Barnett:

NEGATIVE DECLARATION FOR CONSTRUCTION OF WATER SYSTEM FACILITIES FOR LOS ANGELES COUNTY WATERWORKS DISTRICTS NOS. 4, LANCASTER AND 34, DESERT VIEW HIGHLANDS

This letter will respond to comments contained in your October 26, 1990 letter pertaining to the subject Negative Declaration. Waterworks staff have not found any evidence or documentation of archaeological significant sites in the vicinity of either 70th Street West and Avenue G-12 or 60th Street West and Avenue L-12. The area around 70th Street West and Avenue G-12 has been actively farmed for over sixty years and such activities would have long since destroyed anything of archaeological significance. The pump station at 60th Street West and Avenue L-12 will be located within the District's existing pump station site which has already been extensively developed.

Waterworks on May 16, 1989 entered into an agreement with Eastside Well Project No. 54 and 55, Inc., which assures financing for the construction of the 36-inch diameter water transmission main in 20th Street East from Avenue I to Avenue H, in Avenue H from 20th Street East to 60th Street West and in 60th Street West from Avenue H to Avenue J.

Waterworks has approved plans for the 36-inch diameter water transmission main in 60th Street West from Avenue J to Avenue M. An agreement with developers on the west side of 60th Street West is being finalized which will assure construction of this reach. This agreement also incorporates construction of water storage reservoirs at Waterworks' Avenue M and 62nd Street West reservoir site.

A construction contract has already been awarded to construct 12 million gallons of storage at Waterworks' Avenue M and 5th Street East site. Grading of the site has already been completed and erection of the tanks should begin shortly.

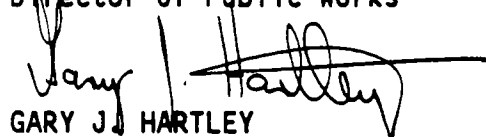
Ms. Susan J. Barnett
February 28, 1991
Page 2

AVEK's Quartz Hill Treatment Plant currently has a capacity of 50 million gallons per day. With the implementation of its "Facility Capacity Fee", AVEK will be completing the Quartz Hill Plant to its maximum capacity of 65 million gallons per day as high priority work.

Waterworks appreciates your comments on the Negative Declaration and hope that this letter reassures you that your concerns have been adequately addressed. If you need further information, please contact Mr. George Papik at (818) 458-7149.

Very truly yours,

T. A. TIDEMANSON
Director of Public Works

A handwritten signature in dark ink, appearing to read "Gary J. Hartley", is written over a horizontal line.

GARY J. HARTLEY
Assistant Deputy Director
Waterworks and Sewer Maintenance Division

GMP:jsk
WW3624

PE 26

City of Lancaster

44933 North Fern Avenue
Lancaster, California 93534
805-723-6000



October 26, 1990

51455.1

County of Los Angeles
Department of Public Works
Attn: George Papik
900 South Fremont Avenue
Alhambra, California 91803-1331

Subject: Negative Declaration for Construction of Water System Facilities for Los Angeles County Waterworks Districts No. 4 and 34

Dear Mr. Papik:

Thank you for the opportunity to review the Negative Declaration for the above referenced project. The City's Department of Community Development recommends that an archaeological survey be conducted for the sites in the vicinity of 70th Street West/Avenue G-12 and Avenue L-12/60th Street West to verify that there are no cultural or historical resources on the sites. The following comments are from the City Engineer, Ken Putnam, of the Department of Public Works:

This project conforms to the overall unadopted Master Plan entitled the "Antelope Valley Water System". However, for the City of Lancaster to receive any substantial benefits to counteract the potential to mine the Lancaster groundwater sub-basin, there needs to be incorporated an agreement that this project will not be put into service until the remainder major elements of the Master Plan are assured of financing and are progressing toward completion. These other facilities are namely:

- 1) 36" diameter (minimum) transmission water main in 20th Street East from Avenue I north to Avenue H.
- 2) 36" diameter (minimum) transmission water main in Avenue H from 20th Street East westerly to 70th Street West and thence northerly in 70th Street West to Avenue G-12 where the three wells are proposed to be drilled.
- 3) 36" diameter (minimum) transmission water main in 60th Street West from Avenue H southerly to Avenue L-12 to an interconnection with the existing AVEK pipeline at that location.
- 4) Completion of a minimum of 50% of the capacity of the planned water storage reservoirs at Avenue M/5th Street East Tank Site and at Avenue M/62nd Street West Tank Site (including connecting pipelines).
- 5) Increase in Treatment Plant capacity of AVEK's Quartz Hill Treatment Plant to a minimum of 65,000,000 gallons per day.

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FROM:

NOV 05 1990

SECTION

SEWER MAINTENANCE
WATERWORKS / DIVISION

City of Lancaster

County of Los Angeles
Department of Public Works
October 26, 1990
Page 2

If you have any questions regarding these comments, please contact Ken Putnam or me at the phone number listed above.

Sincerely,

A handwritten signature in cursive script, reading "Susan J. Barnett". The signature is written in dark ink and is positioned above the printed name and title.

Susan J. Barnett
Environmental Coordinator
Department of Community Development

SB

cc: Ken Putnam



COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (818) 458-5100

THOMAS A. TIDEMANSON, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

February 28, 1991

IN REPLY PLEASE

W-0

Mr. Harold M. Fones
Palmdale Water District
2005 East Avenue Q
Palmdale, California 93550

Dear Mr. Fones:

NEGATIVE DECLARATION FOR CONSTRUCTION OF WATER SYSTEM FACILITIES FOR LOS ANGELES COUNTY WATERWORKS DISTRICTS NOS. 4, LANCASTER AND 34, DESERT VIEW HIGHLANDS

The Waterworks Districts, as stated in the Negative Declaration, would utilize the three wells only in emergency situations, that is when AVEK water is not available or sufficient to meet demands. The Districts have no intention of operating these at capacity for extended periods of time. It is because of this mode of operation of the wells that the effect on the available groundwater supply will be negligible.

Last year, Waterworks used 55% AVEK water to supply its customers in these two Districts and currently has the capability to use up to 75% AVEK water. Upon completion of certain major transmission mains and storage reservoir projects within the next two to five years, the District will have the ability to utilize 90% to 100% AVEK water.

Waterworks is presently evaluating several methods of artificially recharging the groundwater basin underlying the Antelope Valley. Among methods being analyzed are surface spreading grounds, percolation chambers and injection wells. These studies are in very preliminary stages at this time. As the studies progress, affected water purveyors will be kept apprised of our findings.

Thank you for expressing your views concerning the proposed water system facilities as described in the Negative Declaration. If you need further information, please contact Mr. George Papik at (818) 458-7149.

Very truly yours,

T. A. TIDEMANSON
Director of Public Works


GARY J. HARTLEY
Assistant Deputy Director
Waterworks and Sewer Maintenance Division

GMP:jsk
WW3554



PALMDALE WATER DISTRICT

Board of Directors

LESLIE O. CARTER
WALTER M. CAHLITZ
JOE J. SAGE
JOHN M. SIDWELL
NOLAN NEGAARD

2005 East Avenue Q • Palmdale, California 93550 • Telephone 947-4111

FAX 947-8604

CHIEF OF ENGINEERING



October 8, 1990

Mr. Gary J. Hartley
Los Angeles County Water Works
900 S. Fremont Ave., 9th Floor
Alhambra, CA 91803

SUBJECT: NEGATIVE DECLARATION NO. 124

Dear Mr. Hartley:

The Board of Directors of the Palmdale Water District have expressed concern about the project involved with the Ritter Ranch and the proposed improvements related thereto. Even though the initial study concludes there will be no significant effect on the environment and states there will be no depletion of ground water resources, it appears to the Board that, in fact, there will be significant effects, and, therefore, a negative declaration is insufficient.

In the description of the project, it is stated that there will be three 2,000 gallon per minute wells. These wells could then operate at a production rate of 9,600 ac. ft. a year and, by so doing, consume 15-20% of the available ground water in the Antelope Valley. This would appear to be in conflict with your statement that this would not substantially degrade or deplete the ground water resource.

In addition, the negative declaration states that there is an aggressive County program to reduce the amount of well water in favor of increasing use from AVEK. We would like more information on such a program. In addition, the negative declaration states that there is a program being evaluated to recharge the ground water with AVEK water. We are, of course, interested in such information as you may have on that, and I believe implementation of a recharge program to offset additional pumping would be appropriate in this case.

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FROM: _____

OCT 10 1990

SECTION
SEWER MAINTENANCE
WATERWORKS / DIVISION

Mr. Gary J. Hartley
Los Angeles County Water Works

-2-

October 8, 1990

These are the comments we have to make on this Negative Declaration No. 124. Please keep us advised as to the progress on this project.

Very truly yours,



HAROLD M. FONES,
Engineer-Manager

HMF/dtr

cc: Mr. H. Jess Senecal
Board of Directors